MT
898
.B35x

THE CHILD'S VOICE.

LIBRARY
Brigham Young University

GIFT OF

Erma Wortley

MT
898
.B35X

THE CHILD'S VOICE:

ITS TREATMENT WITH REGARD TO AFTER DEVELOPMENT.

BY

EMIL BEHNKE,

LECTURER ON VOCAL PHYSIOLOGY, AND TEACHER OF VOICE PRODUCTION;

AND

LENNOX BROWNE, F.R.C.S. Ed.

SENIOR SURGEON TO THE CENTRAL THROAT AND EAR HOSPITAL,
SURGEON AND AURAL SURGEON TO THE ROYAL SOCIETY OF MUSICIANS.

BOSTON:
OLIVER DITSON & CO.

NEW YORK: C. H. DITSON & CO. PHILA.: J. E. DITSON & CO. CHICAGO: LYON & HEALY.

THE LIBRARY
BRIGHAM YOUNG UNIVERSITY
PROVO, UTAH

TO

JOHN STAINER, Esq., M.A., Mus. Doc. Oxon.,

Honorary Member Royal Academy of Music; Honorary Fellow of
Tonic Sol-fa College ; Vice-President, College of Organists; Member of the
Council and Executive Committee of the Royal College of Music; Inspector of
Music in Training Colleges and Elementary Schools;
Examiner in Music, University of London;
Chevalier of the Legion of Honor:
Organist of St. Paul's, etc.;

THIS LITTLE VOLUME IS INSCRIBED,

WITH THE HIGH REGARD AND ESTEEM OF

THE AUTHORS.

CONTENTS.

	PAGE
Difference between the Voices of Boys and of Girls	10
At what Age should a Child begin to learn Singing?	12
Cultivation of the Child's Voice, in Relation to Health	18
Singing as a Matter of Musical Education	33
Singing from the Voice-Trainer's Point of View	47
Comparison of the Girl's Voice with that of the Woman	55
Causes underlying the Change of Voice in both Sexes	64
The Question of Boys' Singing during Puberty	71
Actual Results of Boys' Singing during Puberty	82
Temptation to use the Voice of the Boy as long as possible	92
Speculations as to the Future Character of a Boy's Voice	99
The Question of Girls' Singing during Puberty	104
When should a Girl commence to make Singing a Study?	107
List of Contributors	109

PREFACE.

"The chief need seems to be the collection of facts well observed by many persons. I say by many, not only because many facts are wanted, but because in all difficult research it is well that each apparent fact should be observed by many; for things are not what they may appear to each one's mind. In that which each man believes that he observes, there is something of himself, and for certainty even on matters of fact, we often need the agreement of many minds, that the personal element of each may be counteracted."

From Sir James Paget's "Opening Address" to the International Medical Congress, held in London, August, 1883.

[*Transactions of the Congress*, Vol. I., p. 115.]

Our attention having been called to the fact that the subject of the Child's Voice had not received sufficient attention from us in *Voice, Song, and Speech*, we resolved to supply the deficiency in a future edition of that work by way of appendix.

While turning this matter over in our minds, we heard it stated, in a lecture given at the beginning of last year by a leading throat specialist, that there is no necessity for boys to abstain from singing during the period of the "breaking" of their voices. That opinion, to

which we are entirely opposed, led us carefully to consider this particular point, together with other questions more or less closely bearing upon it; and we determined not merely to treat the subject from our own personal experience, both scientific and practical, medical and musical, but to submit a number of questions to those best qualified to judge, thereby giving a value to opinions advanced and treatment recommended far beyond that attaching solely to our own views.

We accordingly sent out a number of circulars, of which 200, each containing eight questions, were in due course answered and returned to us. We also issued another set of 610 circulars, each containing four questions, to students in different training colleges for schoolmasters and mistresses, relating to their own personal experiences, to all of which we received replies through the courtesy of Mr. W. G. McNaught, her Majesty's Assistant Inspector of Music in Training Colleges and Schools, and of Mr. Alfred Bourne, B.A., Secretary of the British and Foreign School Society, and to both these gentlemen we gratefully acknowledge our obligation for their assistance.

In addition to the above-mentioned inquiries, we corresponded with many authorities, both

medical and musical, at home and abroad, on other points of interest; and we calculate that we have received in reply to about twenty different questions a gross total of not less than 4,200 answers. We append an alphabetical list of those ladies and gentlemen who have been good enough to give us the benefit of their advice and experience, and to them, also, we herewith tender our cordial thanks.

The replies thus received contained so enormous and so valuable an amount of information as to lead us to renounce the idea of dealing with the subject as we had at first proposed, and we accordingly determined to issue it as a monograph. We were confirmed in this resolve by the wish of numerous correspondents who have urged separate publication, so that the essay may be available to many to whom the necessarily high price of our larger work is an obstacle, as well as to those already possessed of the earlier editions.

Of literature with regard to the "Child's Voice," there is as yet scarcely any; and we trust therefore that the present work may be useful to all who are interested in this most important subject.

EMIL BEHNKE.

LENNOX BROWNE.

THE CHILD'S VOICE:

ITS TREATMENT WITH REGARD TO AFTER DEVELOPMENT.

Difference between the Voices of Boys and of Girls.

The first question which suggests itself to our minds is whether there be any difference between the voices of boys and of girls; but the information received on this point is of a very meagre description.

Here are a few of the answers received:—

Madame Seiler: "I never noticed any difference between boys' and girls' voices before puberty."

Miss Helen Kenway: "It seems to me that in boys there is a greater tendency to force up the chest-voice than in girls. The two extremes are that boys shout, and that girls too often sing in an undertone."

Mrs. Stapleton: "Among rough boys the tendency to shout may make their voices harsher than those of girls; but such has not been my experience among boys of higher grade."

Mrs. Higgs: "Girls' voices impress me as more shrill and less powerful than those of boys, and also as lacking the richness of tone that the latter possess."

Madame Antoinette Sterling: "I think boys' voices are usually fuller than girls' voices."

Miss Franks: "Boys' voices appear to me to be rounder, fuller, more metallic, and stronger than girls' voices up to twelve years."

Mrs. Curwen: "Boys' voices (even the best) have always seemed to me to have a veiled or 'breath-y' quality, quite different from girls' voices at the same age."

Mr. W. M. Miller: "Boys at all ages have naturally lower voices; they have at all times greater difficulty, and require more force, in singing higher tones, than girls. They have also a greater tendency to produce throaty tones."

The truth would seem to be that, as there is no anatomical or physiological difference between the vocal organs of boys and of girls, so there can be no *material* difference between their voices. Since, on the other hand, the vocal organs of boys are more robust than those of girls, their chests being in most instances larger and their forms more developed by out-door games, etc., so their voices are, generally speaking, fuller, and it may be, richer, than those of girls. It may also be accepted as a fact that the majority of boys have alto voices, and that the majority of girls have treble voices.

At what Age should a Child begin to learn Singing.

The general consensus of opinion seems to be that the most favorable period is from six to ten years of age. Some think that the child may be taught to sing from early infancy, but all make the proviso that the voice should not be forced or strained.

Sir Robert Stewart: "Singing being but prolonged and raised speaking, a child may sing, as it may talk, in moderation, from a very early age. Indeed, judging by their powers of crying for hours, without any apparent inconvenience, they may sing as soon as they can speak."

Mr. Joseph Maas: "Singing should commence between the ages of eight and ten years, according to the development of the child. I should commence with a strong boy at eight years."

Dr. Bridge: "I do not find boys of much use under nine, although I commenced at six."

Mr. Handel Gear: "It depends on the capacity of the child, as some will show a disposition to sing at an earlier age than others; but at what age they should learn, or be taught, depends on their intellect and aptitude to receive instruction. Some may begin about the age of seven years."

Dr. Henry Hiles: "A child may very early be encour-

aged to sing gently. Indeed, a healthy child with any musical tendency will naturally sing. But the stress laid upon the voice before it breaks should be very light, and should be addressed chiefly to 'forming the ear,' teaching to read, lessons in breathing, etc. Not the slightest fatigue should be caused, nor should any high notes be attacked."

Mr. W. G. McNaught: "When he begins to show power of imitation. Some children can sing little tunes at three and four years old. Generally then their voices are entirely high, — all in the thin register, — the lower notes coming gradually. I have never seen any reason for discouraging children so young from singing, provided they are not allowed to shout. Nearly all children can learn to sing by the time they are seven years of age."

Madame Lemmens Sherrington: "Children of both sexes should sing as soon as possible. You will generally find children whose nurses or parents have sung to them when young develop good ears for music and strong voices. Early training sharpens the sense of hearing, and early use of the vocal chords stretches and strengthens them. Children should, therefore, from earliest childhood be taught little songs and dancing to acquire rhythm."

Lieut.-Colonel Douglas: "In the hands of an efficient teacher I think a child may commence to learn singing as soon as he is sufficiently intelligent to understand and to carry out the instructions of his teacher. But in this case he wants well looking after, and must have sufficient taste for music to encourage him to do his best."

What has been said so far appears mainly to relate to boys; and we now append a few opinions specially relating to girls: —

Mrs. Curwen: "A girl should begin to learn singing as soon as she can talk."

Madame Seiler: "As soon as the intellect of a little girl is sufficiently developed, I find it advisable to begin with the cultivation of her voice."

Miss Helen Kenway: "A girl may begin singing as early as she can produce the musical notes; care being taken that she sings only such pieces as suit her age."

Miss Franks: "With care and gentleness she may begin from babyhood."

Mrs. Haynes: "Girls cannot be taught too early; but this must depend much on the health and strength of the child, and the capacity for receiving instruction, which should never be given except by a competent master."

Miss Macirone: "I think she should be encouraged to sing from her earliest childhood; but never to force her voice either in compass or strength. Madame Clara Novello often told me that from her own experience she should advise every girl to be allowed to sing from earliest childhood naturally; but, if taught, that it should be only after the Italian method of developing the voice gently — never forcing it."

Mr. Arthur Marriott: "A girl may learn rudiments and easy music, but must not be worked hard until after thirteen or fourteen.

Dr. Sloman: "Let a child sing naturally and freely at any age. Begin in earnest with a girl at about fifteen."

Mrs. Higgs: "Simple singing may begin as soon as she can talk; but the *study* of the art of singing and the practising thereby required, I have *generally* found best delayed

till fifteen or sixteen years of age, according to the constitution."

Mrs. Stapleton: "If by singing is meant *full* voice culture, I should not, unless compelled, accept a girl until she has ceased growing, as I fear to work a voice while there is the strain of growth going on; but simple part-song music, especially in sol-fa, I have taught to *very* small children."

"Madame Antoinette Sterling: "A girl may commence singing as early as possible. *Cultivation* of the voice should not commence till *after* the change to womanhood, ordinarily."

Mrs. Carlisle: "No girl should learn voice-production as a singer until she is matured."

Mrs. S. Bradshaw McKay: "I prefer not to *train* a girl's voice until she has reached womanhood."

Mr. Frank Braine and Mr. B. M. de Solla: "At about fourteen or fifteen."

Dr. Lewis and Mr. H. C. Layton: "Not until fifteen or sixteen years of age at least."

Mr. Edwin H. Lott: "A girl should never sing much during childhood."

Dr. Stainer: "Little girls should not be taught to sing at all, as their tender voices are often *permanently* injured by premature efforts. A female voice should not go through *any serious work or training* until womanhood has been reached."

We now append the *personal* experiences of a few lady vocalists and teachers: —

Madame Lemmens Sherrington: "I do not remember

when I began. As a little child, I was perched on a chair to sing songs; later, at *ten years* old, I went to an old gentleman who trained about thirty children to sing at early mass on Sundays in our parish church. There I began to sing little solos. Later on, *at fifteen*, I went into the chorus of grown-up people at the church at Rotterdam, where I learned all the beautiful church music of Mozart, Beethoven, Haydn, etc. At the same time I attended the great societies' practices for oratorios. *At seventeen* I went to the Conservatoire, at Brussels."

Mrs. Higgs: "I believe I sang as a baby. At all events, I cannot recollect the time when I did not sing."

Miss Macirone: "I never remember the time when I did not sing, and enjoy singing."

Madame Antoinette Sterling: "I cannot remember when I did not sing, although the actual cultivation of the voice began at about sixteen."

Mrs. Warren: "I commenced singing when about six years of age. I am now over fifty and am still singing in public."

Miss Grace Sherrington: "I began to sing as a child of six or seven, and sang at early mass at our church in Rotterdam. At the age of eight, I was (unfortunately, I think,) promoted to the grown-up chorus at high mass, when they performed all the usual difficult masses sung on such occasions. At fifteen I learned the *art of singing* at the Conservatoire, Brussels, at which time I was made to sing all the operatic arias. I was left without tuition after sixteen, and between that age and eighteen I sang my voice away to total extinction."

MADAME SEILER: "I remember singing quite prettily at seven years of age all the little songs my sisters taught me, imitating by myself all the Italian arias which they learned in their singing lessons from an Italian master. Despite my early beginning and the constant use of my vocal organs (singing almost daily with my pupils from morning till evening), my voice is still in its full power, freshness, and compass — rather improving than losing — and at my next birthday I shall be sixty-four years of age."

MRS. STAPLETON: "*The study of singing*, I did not begin until I was eighteen. Previously, I had sung only in public worship, and some songs to pianoforte accompaniment."

MRS. MARY DAVIES: "I sang in public at ten years of age, and did so at intervals up to the time I entered the Royal Academy of Music; but I did not study singing or work hard at it until I was nearly eighteen."

MRS. CURWEN: "I have sung as long as I can remember; but when I was a child, singing was not taught in schools (private schools, at any rate), so I escaped the habit of shouting and straining, so common now with children who go to school. And I never had singing *lessons* till nearly nineteen years of age."

Here, then, we have a number of opinions more or less contradictory; and it will be necessary, in order to fully understand and appreciate them, to bear in mind that the question of singing during childhood may be considered from various points of view.

1. In its relation to health;
2. As matter of musical education; and
3. From the voice-trainer's point of view.

Cultivation of the Child's Voice in Relation to Health.

In considering the training of the child's voice from the health point of view, there need, happily, be no fear of difference of opinion, for all will admit that nothing but improvement can result to the general well-being as well as to perfection of functional exercise, provided only that moderate care be observed.

So much has been written in later days on the influence of early physical training on the health and growth of the child, that there is no necessity to treat this question from a general point of view, and it will be sufficient to consider a few of the special benefits to the child's well-being which regular singing exercise may bring about.*

First, as to its influence on respiration, without doubt the most vital function in our human economy. We can treat of this under several heads.

* Both Mr. Curwen and Miss Chreiman have treated this point with lucidity and detail in their respective lectures in connection with the International Health Exhibition of 1884.

(*a*) While respiration is essential to life, voice may be considered as an accessory to its main function of giving oxygen to the blood. Good singing implies full, deep breathing, and, as a result, we should expect children regularly exercised in singing to have better health than the average; and such, indeed, is the case, even when the climatic and sanitary surroundings might not be considered the most favorable.

We have been confirmed in our opinion on this point by a recent most interesting conversation with Dr. Martin, sub-organist and singing master of the boys of St. Paul's Cathedral, who has had twenty years' experience in the training of children's voices, and has been ten years in charge of the choir boys of St. Paul's. He tells us that with an average of nearly forty boys in that school no death has occurred during the period of his appointment, nor has he ever witnessed pulmonary delicacy engendered. On the contrary, he has seen the health of many boys of consumptive disposition greatly improved; and this is very striking evidence, when it is considered that the school is situated right in the heart of the city, that the only playground of the boys is on the asphalt-covered roof of the school-house, and their only chance of a breath

of fresh air is a run along the Thames Embankment before their breakfast.

These boys who enter from nine to ten years of age, and stay till fourteen or fifteen, are not all town boys, but come in equal proportions from London and the country. Two at present in the school, who came from Scotland, entered in delicate health, and are much stronger than when they first came.

Nor must it be thought that the work of these boys is but slight, for their education involves not only vocal exercise, with rehearsals of two hours a day and choir duty of an hour twice daily in the cathedral, but they receive also a thorough classical and general education, and their hours of study are certainly not less than those in general schools. This institution, which might be taken as a model of its kind, compares, of course, favorably on the question of education with many others, on account of the large amount of money at command; but on all questions of health it should occupy a lower position than could be afforded in provincial cathedral cities. The evidence, therefore, on the general well-being of its boys is all the more weighty.

(*b*) It is very rare to see children trained in singing suffering from that very common defect

in this country of breathing through the mouth instead of through the nostrils. Wherever such exists in singing children, it probably indicates some defect of enlarged tonsils or thickening of the nasal passages, which can be promptly relieved by surgical treatment.

(*c*) The full respiration so necessary for singing will also exert considerable mechanical influence on the digestion, as explained at length in our larger work of *Voice, Song, and Speech.**

(*d*) The speaking voice will also be benefited, provided care be taken to make the children enunciate the words of their songs distinctly.

A slovenly mode of speaking with closed teeth and indistinctness of consonants should be carefully guarded against; but with regard to the future adult voice, the vowels are of even greater importance, and their absolute purity should be made a matter of patient and careful instruction. Such education should be commenced by parents and nurses; for when children come under the influence of teachers, it is frequently almost impossible to eradicate habits of speech which they have formed from babyhood.

We have said that singing exercise may be

* Sampson Low and Co., 188 Fleet Street, E.C. Third Edition, 1884.

beneficial even where the surroundings are not all that can be desired; but it is none the less important that the air of the room in which the vocal lessons are given should be as pure as possible. This hint may sound to some as the unnecessary reiteration of a truism, which applies equally to the surroundings of children during the hours of lessons, no matter of what description, and that the point does not require to be insisted on in these days of advanced architectural knowledge and the erection of magnificent Board Schools; but a wide experience teaches us that there is yet much to be desired in the matter of ventilation.

One class of people seems to think that a large, open fire is sufficient for all needs; but this method of ventilation, while very agreeable for the cat and dog that lie on the ground at the fireside, is by no means perfect for human beings, who breathe air at a higher level. Others place "Tobin vertical shafts," which give ingress to plenty of fresh air, but they provide no escape at the top of the room for the foul.

Lastly, many pin their faith to the fashionable "through ventilation," which means open windows on each side of a room. We were recently in a Board School room so constructed,

and although the master was comfortably ensconced out of the draught, and possibly the poor children were hardened to it, we suffered so considerably from the downpour of cold air, that we had to waive politeness and keep on our hats. Nor is there by any means suffcient attention paid to the carrying off of the products of combustion of gas; and, notwithstanding there are many methods of effecting this desirable end, the large, open brackets on the side of the walls or hanging from the ceilings are still too frequently to be witnessed.*

So far, we have referred principally to this health question as affecting choir boys, but we desire to impress strongly our conviction of the benefit to the health that regular singing exercise would have on all children were it made a part of their general education, and we would anticipate an objection that would probably be raised to such a scheme, on the ground that there is already so much to be learned that singing lessons would but add to the existing heavy educational burden which teacher and pupil have alike to bear. We hold that singing lessons would

* Many of these points have been alluded to in *Science and Singing*, by Lennox Browne. Chappell & Co., 50 New Bond Street, 1884.

act beneficially, not only on the general health, but also as a true recreation, and would be especially advantageous for those children who, on account of natural constitutional delicacy, are precluded from taking as much outdoor play as would otherwise be practicable.

Dr. Dukes, the medical officer of Rugby School has well said that—

> "It is the boy who is growing too rapidly who suffers from overwork. The boy who takes no exercise may be said to suffer from relative, rather than from absolute, overwork. With proper exercise he would make healthy blood, and with proper blood he would have a healthy brain, able and ready to do all required of it." *

The time occupied in singing would by no means be ill-spent, if it served to brighten up the intellect of the children for other work, and in our experience such lessons have always this effect.

In the education of children's voices it is very desirable that, from a health point of view, soft singing should be encouraged.

There is a tendency in children at play to scream at the top of their voices. This has the effect of making the voice coarse and unmusical,

* *The Book of Health.* Article: *Health at School.* Cassell and Co., London, 1883.

and it should be discouraged and checked by all possible means, and particularly by good example. The teacher who habitually shouts to his pupils has no right to complain if the children adopt the same style of addressing each other.

Mr. Turpin has touched on this point in his communication to us in the following words: —

"Rough play in noisy streets, attended by loud shouting, I find to be, through forcing the tones of the lower register, the most frequent cause of failure in training boys' voices; so boys of superior classes make the best singers."

This is no doubt largely true; but as children are possessed of great imitative faculties, there is no reason why boys of inferior classes should have less good voices, provided the teachers are not also inferior. The question is one, however, not devoid of practical difficulty, and we are aware that in some choir schools the authorities do not view with favor any endeavor on the part of singing-masters to moderate shouting during the play-hours of the boys; for they say that any such restraint is likely to interfere with their growth in manliness and cheerfulness. In this, as in other matters, the best guide is by the safe middle way; the masters should speak gently, and the boys should be told that force is

no more a proof of beauty than that it is indicative of or conducive to health.

Let us now consider one or two points worthy of notice as to the health qualifications of children to be selected for choir boys, and also a few hygienic facts influencing their career. Mr. James C. Culwick, of the Chapel Royal, Dublin, thus writes to us, his remarks being suggested by his experience as a chorister in an English cathedral: —

"It has seemed to me an important point in the choice of boys for choristers to exercise more care than is usually given to secure boys who are vigorous and of sound health. Especial attention to the state of the throat is necessary. Some boys from the first show a tendency to a redness in the throat, which increases often with their growth. Such, I fancy, often sing with pain, and not successfully; and, I think, lose their voices before the average time. A few guiding words on this head would be useful."

There is doubtless some truth in this suggestion of Mr. Culwick, but on the other hand some of the finest voices are to be found in children of a delicate constitutional disposition; and we repeat that, provided care is taken not to force the voice, singing education is beneficial to the health; nor have we ourselves witnessed such cases of redness of the throat, independently of

enlarged tonsils, as appears to have been observed by Mr. Culwick, unless the voice has been overtaxed, or some injurious agent to the general health has been present. The evidence of Dr. Martin on this head, which we have previously quoted, is much more in consonance with our own experience.

We have in our minds a case, in which a boy failed to pass into a collegiate choir on account of impediment in his vocalization, the cause of which, when brought to us, was found to be easily removed by surgical treatment. On its conclusion, the child at once secured a position in an even better choir, and has since developed a voice of great beauty. While, therefore, it is doubtless necessary that children should be submitted to medical examination before admission into a choir, the existence of some slight defect of speech or voice, or some apparently unhealthy condition observed by non-medical persons, should not be considered an irreparable obstacle to excellence.

As to the hygienic life of the child, there is no doubt that, as Mr. S. F. Heald, of St. Leonard's, Wortley, writes, "Mode of living, diet, rest, etc., have great influence on boys' voices."

Dr. Iliffe has also alluded to the fact that—

"*Good nourishment* has something to do with the condition of the voice." He continues: "Hullah used to say that insufficient nourishment would make a boy sing flat. I could hardly say that, because it would in some degree depend on the state of the atmosphere he was singing in at the time, and whether he used additional force or not. But I believe it would produce a certain harshness and 'twanginess,' which is easily heard, but is difficult to explain."

But there is really nothing to be noted for special consideration in this connection beyond the fact that singing engenders hunger, and that, therefore, singing boys have often lusty appetites. It is quite as important that some regard be had as to the interval after eating before a child should be allowed to have his singing lesson, as it would be in the adult. This is somewhat difficult with choir boys who are at a general school, and there is often some difference between the choir-master and the schoolmaster on this head.

Therefore, on general, quite as much as on health grounds, it would be desirable that in our University towns there should either be a *consensus* on the part of all the choir-masters and schoolmasters as to the times for the two kinds of education, or that there should be separate educational

institutions for choir-boys, and the system existing at St. Paul's might well be encouraged in other cathedrals; but even where these schools exist we are sorry to say that we have found instances in which this point of proper interval of rest after food prior to vocal exercise is not observed. In one that we could name, the boys commence their singing lesson a quarter of an hour after dinner, continuing for two hours, and then leaving to attend for another hour at the evening service of their cathedral. It speaks much for the long-suffering forbearance of Nature that breakdowns do not more often take place in such circumstances.

One other important point is that of clothing, and though there is no reason why children who do not sing should be less rationally dressed than those who do, free inspiration being necessary to good singing, it is very important for the latter purpose that neck, chest, and waist should be kept free and unconstricted by tight collars, corsets or belts, and that at frequent intervals necessary alterations in garments should be made, so as to allow for the increase of growth.

It is very essential that all children, and especially when engaged in singing, should have

sufficient sleep, and we entirely agree with Dr. Dukes that the tendency at schools is "towards too little rather than too much sleep." We have seen instances of this, especially in choir schools.

The advice of the physician just mentioned on this point is well worthy of quotation :—*

"The amount of actual sleep required for boys under ten years of age is eleven hours, and the best time for it is, except on the very hottest nights in summer, from 8.30 p.m. to 7.30 a.m. ; for boys under thirteen years of age, ten hours and a half should be set apart, from 9 p.m. to 7.30 a.m. ; breakfast should follow at 8 a.m., and school at 9 a.m. For boys over thirteen the eight and a half or nine hours usually permitted, but never obtained, are not too much, if enough, considering their active period of growth and the amount of mental and bodily exercise they undergo. In bed at 10 p.m., which means sleep not much before 11 p.m., and called at 6.30 a.m. for chapel at 7 or 7.30 a.m., is, I believe, the rule in most public schools. With only this amount of sleep some boys seem weary, and look as if they did not get sufficient rest."

These remarks apply with even greater force in the case of girls.

There is just one more point beyond that touched on elsewhere, connected with the change of voice at puberty. Some of our musical correspondents have likened the importance of rest during the break of the voice to the necessity

* *The Book of Health*, p. 688.

for repose of a broken limb, but, of course, from a medical point of view, the two conditions of things are not quite analogous. A better simile would be that of a sprain of joint or tendon.

All medical authorities agree that at the period of the break of the voice there is a state of congestion of the vocal organs, i.e., an increased blood-supply without sufficient allowance of return; and it is strange that any physician should recommend continuance of exercise of vocal function in such a state of things in the case of young boys on the verge of manhood, when his very first injunction to an adult patient in similar circumstances would be the observance of complete functional rest.

Mr. James Pye, Mus. Bac., Oxon., has noted that —

"Often young men, if they have grown rapidly, are extremely delicate at the period of breaking, and this circumstance will, perhaps, frequently render it advisable to defer any attempt to train the voice for a few years; and I think very often the mischief done in early manhood may have been erroneously attributed to what has been done in boyhood."

With this remark we are inclined to agree, but we cannot think there is anything very much to

be made of the suggestion of Dr. A. E. Dyer of Cheltenham, and others, that —

"Boys of small stature preserve their voice without breaking for a longer time than those who grow rapidly,"

for it would be easy to give many individual instances proving exactly the contrary.

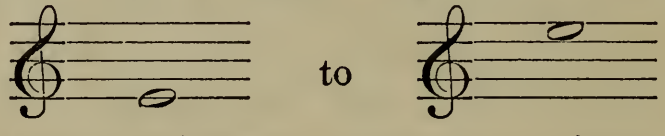
Singing as a Matter of Musical Education.

We hold with the late Dr. Hullah and Mr. John Curwen that singing is the proper beginning and foundation of all musical study. The reason for this is set forth in a masterly manner by Mr. John Spencer Curwen in a paper on "Singing in Schools," read at the Educational Conference in connection with the International Health Exhibition, in September last. He says: —

"The process of learning an instrument, like the pianoforte or violin, can be divided into two parts. First, the process of training the ear in time and rhythm, and the eye in musical notation; secondly, the process of mastering the mechanical difficulties of the key-board, and enabling the fingers promptly to obey the mind. Now, the first process can be attacked most easily by learning to sing. It is a case of 'divide and conquer.' A child who has learned to sing and to read music with his voice, can devote his undivided attention to the manual difficulties of the instrument he is trying to play."

It is obvious that the vocal apparatus should be treated with the greatest gentleness, and that no strain should be laid upon it, either with regard to pitch, loudness, or length of sustained tones; and it is quite clear that the treatment of children's voices must vary according to circumstances, and chiefly with regard to years. We may, for this purpose, divide children into three grades, and speak of them as *infants*, — by which we mean children under seven years of age; *juniors*, from seven to ten; and *seniors*, from ten to thirteen.

Speaking of the majority of voices, it will be a safe plan to limit the compass of infants from



As these little children cannot possibly have any great sustaining power, they should be taught to sing quickly and lightly, and loud singing should be entirely forbidden. There will undoubtedly be children with voices of a more extended compass, and who are able to exercise greater power without any detriment, but it will be a safe rule never to go to the full extent of either compass or power. We agree with Mr. W. M. Miller, who thinks that —

"Boys should be taught to imitate girls in the use of the

registers; otherwise they invariably force the higher tones. The training of infant voices requires great care, skill, and much experience on the part of the teacher."

We are strongly convinced that the adult voice is a thing to be treated gently, and to be coaxed rather than forced; and we are of opinion, therefore, that even greater tenderness is required in the treatment of infant voices.

Our views are shared by Madame Seiler, who says:—

"I have found it an art by itself to teach children singing. It requires the *most careful*, *gentle treatment*, much more so than the cultivation of the voices of adults demands; and therefore *only the best teachers* should be trusted with the cultivation of children's voices." (The italics are Madame Seiler's.)

Soft, pure tone should be cultivated from the beginning, and rough, throaty, and nasal tone should be corrected. Above and before all, the maxim that singing is not so much a matter of hard blowing as of purity of tone, and of resonance, should be remembered from the very first; and teachers should be very careful to set an example to the children by their own singing, for it is surprising how the little ones will mimic their faults as well as their excellences.

We remember the case of a little girl who

was sent away from home to a boarding-school, and whose vocal habits when she went were unobjectionable. The lady under whose care she was placed had received her early education in America, where she had picked up the nasal twang. This nasal quality was in after years only noticeable in her singing voice. When the child returned home, after a year's absence, she was a perfect little counterfeit of the imperfect model she had been imitating.*

Another instance, but on a large scale, and in the case of adults, occurred some years ago in a choral society. It had been newly established, and consisted almost entirely of fresh young voices, the natural sweetness of which was charming. When we listened to this same society two or three years after its formation, we were astonished at the surprising deterioration in the quality of the female voices, which were all like those of old women, the explanation being this: a lady singer of great reputa-

* Our American cousins are somewhat sensitive concerning this much-to-be-reprehended "twang." It is only fair to note that it has been advanced with reasonable plausibility to have originated in the nasal tones of the early Puritan emigrants from this country. In certain counties and districts there still exist many provincialisms observable even in singing, and quite as objectionable to the refined ear.

tion, but no longer young, and with a now cracked voice, had taken them in hand, and they had, alas! imitated their teacher's objectionable qualities, which were by this time more noticeable than her former excellencies.

With reference to this point, Mr. Joseph Maas observes: —

"A boy's voice is like a bird's, and he can be improved by catching the voice or notes of better singers; and, therefore, he should be with and hear good singers and good instrument players as much as possible."

Speaking of infant voices, Mr. W. M. Miller says: —

"Voice *training* cannot be attempted, but voice *destruction* may be prevented. Soft singing is the cure for all the ills of the vocal organs."

This is one way of putting it. But it may also be asserted that by attending to sweet, soft singing, and by insisting upon pure tone, the surest foundation will be laid for the ultimate proper after development of the voice.

Not only is it necessary to sing gently when "patterning," but also to speak gently; and to this particular we would specially direct the attention of all class teachers. Some raise the voice in pitch till its sharp and cutting tones pierce the ear, and yet this high-pitched voice

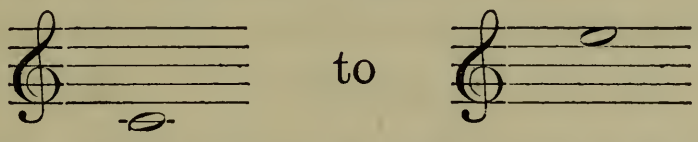
does not "carry" as far as it would in a lower key. Children, even more than adults, are influenced through the voice. Loud, harsh and cutting tones should never be used in the presence of these unconscious little imitators. The ear in childhood develops so rapidly, that impressions are received and habits formed which it is difficult to eradicate in after years.

The child who always hears gentle and musical accents is less likely to grow up with a dissonant voice than the one who is always addressed in loud, harsh, and repellant tones.

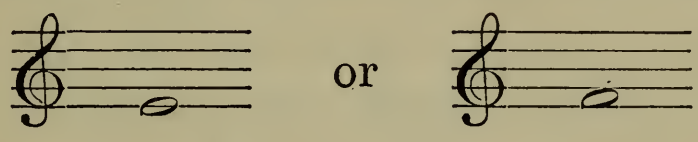
With regard to instruction in schools, Mr. Evans, in his first report to the London School Board, gives the following excellent advice: —

"I strongly recommend not to attempt to teach the whole school at once, but to classify the children according to ability in singing, remembering that in every school there would be about one-third who learn to sing quickly, and the other two-thirds slowly, and that instructors would be able to teach the whole much more quickly by having two classes, and that they would thus provide for new-comers, as well as for those slow in learning to sing. By this arrangement they would also be able more successfully to train the voices, and to establish in their schools a good quality of tone, and effectually to break down that fearfully noisy and coarse singing which is not only doing the voices a serious injury, but which also destroys the tenderness and fineness of feeling which music ought to produce.'

Now, turning to *juniors*, all that has been said about soft, light, and unstrained singing, and the purity of tone, etc., applies equally to them. But the compass of their voices becomes more extended, and may be carried from



The difference between high and low voices is more marked, and involves dividing into parts. Attention should now also be carefully directed to the proper use of the registers, and it will be particularly necessary to prevent boys from carrying their thick (or chest) registers above

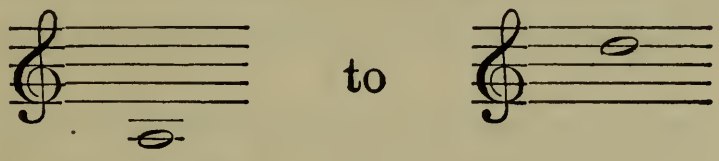


The necessity of limiting the *compass* of children's voices is frequently insisted upon, no attention whatever being paid to *registers;* and yet infinitely more mischief is done by forcing the registers than would be accomplished by allowing children to exceed the compass generally assigned to them, always provided that the singing be the result of using only those mechanisms set apart by nature for different parts of the voice. Teachers will find, if they have once succeeded in getting a few of their quicker

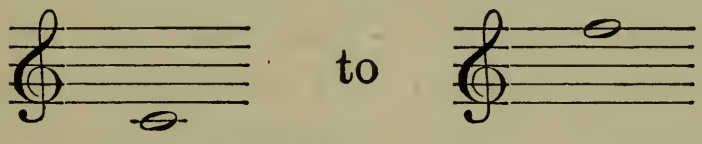
pupils to use the proper registers, that the others will unconsciously adopt the same means of producing their voices; and no difficulty will, therefore, be experienced on this head. It will not even be necessary to say anything to the children about the registers — much less to give them lectures on vocal physiology. Male teachers should also remember that they will gain their ends much more quickly by having tunes and phrases "patterned" by some of their more advanced pupils, instead of singing the examples themselves. The children should also be more carefully classified with regard to ability than they have been in the former grade, because the quick ones and the slow ones are serious hindrances to each other. The quick pupils are prevented from making progress by the slow ones; and the slow ones are prevented from making progress because they simply follow the lead of the others, and make no independent exertions of their own. But what is worse, the voice of the quicker pupils are in serious danger of being injured by the terrible strain which is put upon them in their efforts to drag along with them the dead weight of the backward ones.

Everything that has been insisted upon with regard to juniors also applies, and even more

strongly, to *seniors;* and boys in particular require the utmost care, because their voices begin to manifest a tendency to lower in pitch. The compass should be strictly limited for altos from



and for trebles from



Some seem to think that boys should under no circumstances be permitted to sing treble. Dr. Parry observes: —

"In Wales boys *never* did sing treble, *always alto without exception.* In church choirs a few may have done so; but in Wales the population are *chapel*-goers, and their choirs are as stated." (The italics are Dr. Parry's.)

That this device, however, is no security in itself against injury to the voices may be seen from a paragraph in the *Tonic Sol-fa Reporter*, in which a correspondent of the *Merthyr Express* is quoted as follows: —

"I have been to scores of Eisteddfodau, and have seen many very excellent choirs ruined by the forcing of the boy altos. I have heard many of our principal adjudicators denouncing this element in no measured terms."

The singing of these Welsh alto boys, as above described, stands in the strongest imaginable contrast with that of the boys at St. Cunibert's in Cologne, of which the *Lyra Ecclesiastica* (the Dublin organ of the St. Cecilia Society), also quoted in the *Tonic Sol-fa Reporter*, says: —

"It seems to be far from Vicar Hoeveler's object to secure a large volume of sound; all his attention is devoted to the quality of tone, which is indeed in his choir something altogether special. *The head voice only is used*, even by the altos down to their lowest notes, or very nearly so. The boys are taught to take breath silently and swiftly, not very much, apparently, but very frequently. The accented and unaccented words and syllables are very carefully observed, and the understanding between choir and director is most intimate. The result of this training is a quality of tone so soft, velvety, mysterious, as we have never heard before, a perfect intonation, a wonderful evenness of voice from top to bottom of their range, freedom from shrillness in the upper notes and from roughness in the middle."

This leads us to note grave errors frequently committed in the choice of music, in the endeavor to form the taste of the children. Mr. J. S. Curwen mentioned this point at the Educational Conference in the following words: —

"In one school I heard lately the treble and alto of Barnby's 'Sweet and Low,' the tenor and bass being

totally absent. In an infant school the little ones gave me the treble part of Morley's madrigal, 'Now is the Month of Maying.' In a boys' school, still more wonderful to relate, I was treated to Handel's 'Hallelujah Chorus,' in four parts, and as the tenor and bass were sung by unbroken voices, they were both an octave too high, the bass being on a level with the contralto, and the tenor often going above the air."

Such absurdities as these are perhaps not very frequently committed, but it has lately become the practice in several towns to have the "Messiah," "St. Paul," and "Elijah" performed by choirs of children, the tenor and bass parts being, of course, sung by men. The children taking part in these performances are from ten to thirteen years of age, and incapable, mentally as well as physically, of bearing the strain put upon them by the preparation and execution in public of such works as these, which are sufficiently trying for even grown-up people. Neither are such undertakings to be commended from an educational point of view, because the children have to grind the music by ear night after night, and week after week, going over difficult phrases a thousand times, when, if individually tested, it would be found that many of them are incapable of singing even a simple psalm tune at first sight. The large number of hours spent in getting up such works is a waste

of time which, if devoted to educational efforts, would prove invaluable to the pupils. We are of opinion that such performances are mere vain-glorious shows, and ruinous to the voices; and that they should be opposed in the interests of art, as well as of humanity. They also lead to fraud; because it is a well-known fact that many girls possessing good voices and musical ability, who are well in their teens, are dressed for the occasion in short frocks to give them the appearance of young children for the purpose of assisting the little ones and of deceiving the public.

We have heard it stated that the children understand and appreciate the music they are taught to sing. If they do, they are not average children, but prodigies, made so by unnaturally forcing their capacities. Whatever goes against nature's laws is wrong, untrue, and will bring its own punishment; and this process of musical "cramming" will infallibly have as deleterious an effect on the after growth of their intellects as any other mental cramming process.

Many of the above remarks apply with equal force to operatic performances by children. We recently went to hear the *Pirates of Penzance*, by a company of children, at the Savoy Theatre, and

we confess that we were greatly pained thereby. The rendering was wonderfully, though automatically, perfect, revealing everywhere the supreme influence of the drill-master; but there were also signs clearly indicating that the juvenile singers were physically unequal to the task imposed upon them.

As these pages are going through the press, we observe in the *Musical Times* of March the 1st an article on "Precocious Talent," which is pregnant with sound advice, and which ought to be read by every one interested in the musical education of children. We quote from it the following remarks on the entertainment just alluded to: —

"We feel that we should be failing in our duty if we did not record our belief that the London public, by countenancing such a performance, lends its sanction to, and becomes responsible for, the musical and dramatic overpressure involved in the preparation of these and similar entertainments. . . . Perhaps we are unduly alarmist in our views. At any rate we do not stand alone in holding them, or in considering that the public is gravely culpable in encouraging a system, the wholesale adoption of which may lead to a new massacre of the innocents. . . . If the audiences are not merely content to be amused, but resolve to examine the means by which that amusement has been produced, and the physical results of these means upon the performers, and, on finding the one and the other illegitimate and hurt-

ful discourage such performances, the abuse, if it exists, will abate, and clever children will be debarred from one more avenue to premature fame and untimely collapse."

With these strictures we cordially agree, and they require but little comment. Oratorio performances by children and opera performances by children are, so far as the purpose of this treatise is concerned, quite on a par; but with regard to the number of executants, infinitely more mischief is likely to be done by oratorio than by opera, because the former is possible in almost every little town, while the latter can, for obvious reasons, only be attempted in comparatively exceptional circumstances.

Singing from the Voice-Trainer's Point of View.

We have now to discuss the question whether the vocal organ of a man or of a woman will be benefitted by training in childhood. We are bound to say we think the advantages of early training have been greatly over-rated; and, in order to fully enter into the matter, we will deal separately with the voices of boys and those of girls.

The fingers of the violinist or pianist merely develop; they never change in structure. These performers will, therefore, undoubtedly derive the utmost benefit from early training; and they have only to continue properly directed exercises, in order to attain the highest degree of executive skill. But, supposing the voice of the boy to be very highly trained, the fact that the vocal organ undergoes a complete change at puberty to a great extent nullifies advantages previously gained, so far as the mere mechanical acts of voice-production are concerned.* It

* This view has already been advocated in *Science and Singing*, by Lennox Browne. London: Chappell and Co., 1884.

is even asserted by some that the training of the voice of the boy injuriously affects the voice of the man. On this point Madame Seiler says: "My experience has taught me that it is *utterly useless* to cultivate boys' voices before puberty, because the vocal organs during that period undergo such a great change that only the musical knowledge acquired will be of use later on." This may, perhaps, be regarded as an extreme view; but it is pretty generally admitted that the number of boy choristers with fine voices who attain to eminence as singers in after life is very small, when, from a superficial survey of the matter, it might be very naturally concluded that the boy achieving distinction as a soloist would also attain to excellence as a singer in after life.

In order to put this matter to the test of practical experience, we asked the question: Is it, or is it not, a fact that chorister boys who have exceptionally fine voices seldom turn out singers of any note in after life?

In reply — 35 correspondents say that they have not had sufficient experience to come to a satisfactory conclusion; 5 are of opinion that it is *not* a fact; 18 think it uncertain; and 118 say it *is* a fact.

We append a number of their opinions : —

Sir Frederick A. Gore Ouseley : "Certainly not, if due care has been taken not to strain the young voice."

Rev. Ernest Letts : "My experience is that it is *not* a fact."

Dr. Roberts : "I know no reason why choristers should not have good voices after their voices have broken ; my experience is that they have more than average good voices."

Dr. Thomas Rogers : "I think that most *efficient* choir boys do make *good* singers in after life ; and all the better for their early training."

Dr. Parry : "All our excellent Welsh voices are the result of the great choral experience they get in Wales ; and are as good *after* as they were before the change."

Dr. Frank J. Sawyer : "It is quite *uncertain*. Cummings, Lloyd, and Maas were all chorister boys. Arthur Oswald, the young baritone, had also a charming voice as a boy. There is, on the whole, more evidence that choristers become good men singers than that the youthful efforts hurt their future voices."

Mr. Alfred J. Eyre : "The beauty of a boy's voice is no *guarantee* of its quality after breaking ; although I should think the chances would be decidedly favorable to the after voice."

"Mr. Humphrey J. Stark : "I do not think any safe *conclusion* can be drawn. Many chorister boys have turned out fine vocalists in after life. Messrs. W. H. Cumming, Joseph Maas, and Edward Lloyd are cases in point ; but I do not know whether their *boys'* voices were *exceptionally* fine."

Dr. Edward Browne: "It is generally *supposed* that boys having fine voices seldom have good ones as men; but I know of *many* instances to the contrary, in my own experience."

Mr. E. H. Turpin: "It is difficult to say, as such boys usually *drift into other pursuits;* but I have known many good men singers who have been choir boys."

Dr. Martin: "I know it is generally supposed that boys with fine voices seldom turn out singers of any note in after life; and undoubtedly this is frequently the case. But, on the other hand, there are so many exceptions that to my mind it cannot be laid down as a rule."

Mr. Joseph Proudman: "*If* it is a fact, it is because they do not change their part when nature gives the indication."

Sir Robert Stewart: "Yes; *it is a fact*, and the subject of general remark."

Mr. Joseph Maas: "It is so; but I think in many cases attributable to the fact that before their second voice is developed (or has even appeared) they have adopted other professions, and have not taken the trouble to exercise the voice on its return, often finding a great difficulty with the new voice, after the ease with which they sang as boys; and they have therefore relinquished the idea of adopting singing as a profession (at the best always an uncertain one)."

Mr. J. B. Welch: "I believe there are cases of boys having fine voices and turning out excellent singers afterwards; but I cannot quote an instance. The *general rule* is that they do *not* do any good."

Rev. Wm. Mann: "I believe the fact holds good *as a*

rule. I know but few exceptions; and I attribute it not to the possession of a fine boy's voice, but to the overworking of it."

Mr. Arthur Marriott: "It is a fact; because they are worked to the last note of their treble power."

Dr. H. Harding: "Yes; I think so; and the reason is that they sing *too long* with the treble voice."

Rev. Edmund Venables: "I do not know a single boy of my choir who is now a singer of any note — very few who are singers *at all.* Mr. Marriott, of Windsor, now at Manchester, as an alto singer, is an exception. One reason may be that, trusting to the earlier training of their voice, they do not take the pains necessary to train it afterwards. If they did, the result might be different."

Dr. Stainer: "I have known only three or four cases in my experience of twenty-five years. All were amateurs."

Mr. George Booth: "Not within my own knowledge; on the contrary, I have known several cases of remarkable boy vocalists who have failed to make any impression as men; and that with every disposition on the part of the public to receive them favorably."

Dr. Chas. J. Frost: "No. As a rule good boys become but indifferent adult choristers."

Dr. J. Christopher Marks: "No; but I have known many excellent soloists as boys, who had *bad* voices as men."

Mr. W. Metcalfe: "Of all my brother choristers at Norwich only one became a good tenor singer afterwards; and of all the choristers I have known here in Carlisle, for now thirty-three years, I only know *two* who have decent voices as men."

In order to test this matter yet more fully, we asked the further question: "Can you mention the names of any individuals who, having been excellent soloists when boys, have become great singers in after life?" It is, perhaps, unfortunate that we used the word "great," when we really intended to refer to those who had become as "excellent" singers in after life as they had been in boyhood. Our correspondents, however, to all appearances, perfectly understood what we meant, and we give a list of the names they mention: —

Mentioned by *one* correspondent: —

Bartleman
Bevan
Brereton, W. H.
Brockbank, J. H.
Catto, Wilson
Cooper, Wilbye
Cummings, Foster
Gear, H. Handel
Geary, Gustavus L.
Gedge
Helmore
Incledon
Kempton
Kenningham
Kerr
King, Donald
Lablache
Lansmere
Leafler, Adam
Lockey
Minns, H. J.
Oswald, Arthur
Phillips
Thomas, Louis
Tozer, Ferris.

Mentioned by *two* correspondents: —

Marriot, F.
McGuckin, Barton
Newth, Robert.

Mentioned by *three* correspondents: —

Braham, Reeves, Sims
Rigby, Vernon.

Mentioned by *four* correspondents: —

Gay, Henry Hobbs, John W.
Smith, Montem.

Mentioned by *five* correspondents: —

Novara (also mentioned by the name of W. F. Naish).

Mentioned by *seven* correspondents: —

Cook, Aynsley Cummings, W. H.

Mentioned by *eighteen* correspondents: —

Lloyd, Edward.

Mentioned by *thirty-five* correspondents: —

Maas, Joseph.

The following remarks in connection with this subject by Mr. Joseph Maas will be read with interest: —

"My experience on this question is very limited. I have known several boys who had beautiful voices which did not develop into good voices as men. As you have requested me to speak of myself on this point, I may say that I had a high soprano voice as a boy, and it fortunately developed into an acceptable tenor.

"To become a *great* singer depends upon musical and dramatic intelligence, besides God's great gift of voice; therefore, it is not to be wondered at that few are gifted with the *combination of talent* requisite to become great singers in after life."

The evidence contained in the answers to the last two questions strongly confirms our previously expressed opinion that the voices of men are, to say the very least of it, not improved by training in childhood, so far as exercise of the larynx is concerned. There are, however, other parts of the vocal apparatus to be attended to as well, but we reserve a consideration of these points until we have dealt with the influence of puberty upon the voice of girls.

Comparison of the Girl's Voice with that of the Woman.

With regard to girls, there is no actual change of the vocal organ, but simply a development; and while the voice of the boy at this period falls about an octave, that of the girl falls but little; and this change is, moreover, so gradual as to be almost imperceptible. The presumption, therefore, that the voice of the woman would be the better for training in childhood is even stronger than in the case of the man.

In order to deal with this part of our subject as practically as possible, we have asked a number of ladies, eminent as vocalists or as teachers, the question: "What is the difference between your woman's voice and your child's voice?" Here are a few of the replies: —

Mrs. Warren: "*None.* It has always been a soprano."

Mrs. Curwen: "I don't think there was any difference in *quality* up to eighteen or nineteen years, and then only in the lower part of the voice — the thick register — which, in fact, I had never tried to use till then."

Madame Antoinette Sterling: "In consequence of my exceptionally good constitution, my voice has *always*

been — since I can remember — perfectly natural, strong, and healthy. I doubt if there was *much* difference after (say) twelve years of age; but this, I dare say, is exceptional."

Madame Lemmens-Sherrington: "As a child I had a veiled voice, and not strong. It became a light soprano, from lower A to high E-flat. At a later period it became less flexible, but stronger, and gained breadth. Even now, at fifty years old, my voice is in splendid condition; but anxiety and trouble have taken away my nerve. A voice wisely treated ought to last twenty-five years, *well;* but ignorant composers and bad training spoil three-fourths of the embryo vocalists."

Madame Seiler: "The difference between children's and women's voices, as I experienced in *my own* case, and in the case of all my young pupils, is neither in compass nor in the registers, but in the greater fulness and power of tone, and in a change of *timbre* in the woman's voice."

Mrs. Mary Davies: "No difference except in strength and volume."

Mrs. Higgs: "I am not aware of any difference, save in maturing and extent of compass."

Mrs. Stapleton: "My child's voice was very little used; therefore I know very little about it, except that it was *very* limited in compass, and this, of course, training, especially under so skilful a teacher as I had, greatly extended."

We now give a digest of the replies received from 219 students in training colleges for schoolmistresses: —

66 know of no difference.

13 say that their woman's voice is weaker than their child's voice.

56 observe that there is an increase in strength and volume.

30 remark that there is an increase both in strength and compass.

17 say that their woman's voice is lower in pitch than their child's voice.

16 have changed from soprano to mezzo-soprano.

10 have changed from soprano to contralto.

5 have changed from mezzo-soprano to contralto; and 6 from contralto to soprano.

The answers so far given relate to *personal experiences*. We now add a few others expressing the *opinions* of the writers: —

Mr. W. M. Miller: "A woman's voice is fuller, richer, and has a much more extended compass."

Mr. W. G. McNaught: "A change, often obscure and embarrassing, does take place in girls' voices, concurrent with their physical development. What to do under these circumstances has always been to me a matter of doubt."

Mr. Frank Braine: "A girl's voice will *change* many times. I know an instance: viz., at twelve, very high soprano; at sixteen, contralto, until nineteen, when all low notes failed, and the voice settled into a clear, powerful mezzo-soprano."

We may add to the above our own experience that there is frequently in young contralto voices a high part, which may perhaps be described as a spurious small register, which gradually disappears as the voice becomes finally settled.

We must now pause to draw from the foregoing evidence some practical conclusions with regard to the "training" of children's voices, as distinguished from treatment suggested in connection with hygiene and with musical education. We are more than ever convinced that, so far as the larynx is concerned, the voice-trainer has no business to interfere, or, in other words, that no serious vocal work should be attempted before the voice of the man or of the woman has completely settled.

The testimony on this point in the case of boys is of the strongest kind; and even in the case of girls the consensus of opinion is decidedly against early training. This, however, only applies to the exercise of those parts of the vocal apparatus which undergo a change at puberty, and not to other parts which merely develop, namely, the bellows and the resonator. Great care should be taken to train children in the proper use of these from an early age.

The matter of breathing is simple enough,

because all babies perform that act in a natural manner, so that they have only to be prevented from getting into wrong habits as they grow older. The way of dressing and of nursing the little ones is of the highest importance; and with regard to this subject we have much pleasure in calling attention to a pamphlet on "*Breathing*," * by Mrs. Carlisle, which deals with the matter in a fashion which will commend itself to mothers, who are, of course, best qualified to guide the early physical education of their offspring. Let children be so brought up as to continue the natural way of breathing with which they came into the world, and there will be no difficulty about the supply and control of breath in after life for vocal, or indeed for any other purposes.

The next and last thing we have to refer to in this section is the management of the "resonator." For a general explanation of this subject we refer the reader to the chapter on "Resonance" in *Voice, Song, and Speech*, pp. 201–222. But we give a few hints on the formation of vowel sounds which, if properly attended to in childhood, will confer a benefit upon the singer

* Chappell and Co., 50 New Bond Street, W., 1884.

in after life, as the vowels are produced in exactly the same way both in the child and in the adult.

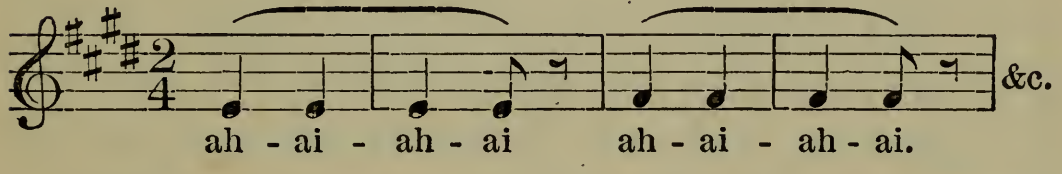
It is necessary, first of all, to acquire a fine "forward" *ah*. Exercises for this purpose will be found in the section on "Resonance" in *Voice Training Exercises*.* (See also *Voice, Song, and Speech*, pp. 210, 211). The pure *ah* once obtained, we proceed to make it a central sound from which to get the remaining elementary vowels.

How to produce a good *ai*: Stand before a mirror and sing *ah*. The aperture of the mouth should not be long and narrow, as in a grin, but square, the teeth being as far apart, or nearly so, as the corners of the lips. Have a light so directed into your mouth as to be able to see the back of your throat without twisting your head. If you sing a pure *ah*, you will see the soft palate elevated, and the tongue lying perfectly flat, and touching the lower teeth all round. Now change the *ah* into *ai*, without in the least altering the aperture of the mouth, and by merely raising the back of the tongue.

* *Voice Training Exercises*, by Emil Behnke and Charles W. Pearce, Mus. Doc. Chappell and Co., 50 New Bond Street, W., 1884.

The *ai* as produced in speaking, by bringing the teeth close together, is a wretched vowel for singing, and devoid of all resonance, no matter how hard be the blowing. The *ai* as produced by raising the back of the tongue with the mouth well open is, on the contrary, a fine telling vowel, and full of resonance, even if sung quite softly. "*Ai* as in *pain* has a harsh effect at all parts of the compass of the voice, and is greatly improved by singing it as in *pen* prolonged." *

Example: —

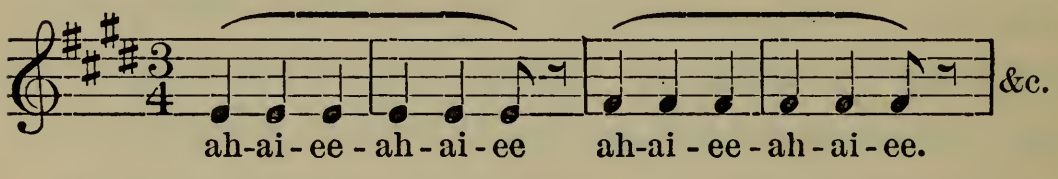


How to produce a good *ee*: Sing *ah-ai* as before, and then change *ai* into *ee*, by relying more upon moving the tongue than by altering the aperture of the mouth. The back of the tongue, which rises in the formation of *ai*, now rises still more, and so changes the *ai* into *ee*. The teeth are allowed to approach a little more than in *ai*, but not nearly as much as in speaking. The *ee* is a variable vowel, and cannot be sung with the same quality at all pitches. "*Ee* as in *peep* is a favorable vowel in the higher

* *Voice, Song, and Speech*, p. 120.

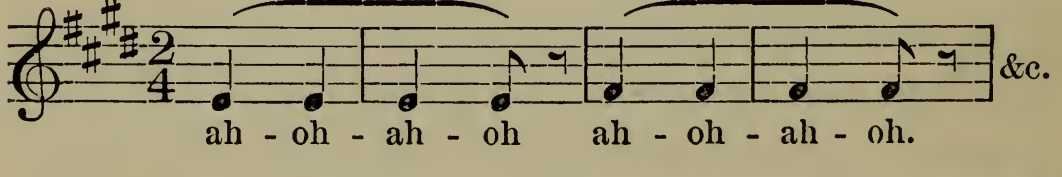
part of the voice, but singing down the scale it becomes more and more clouded, until at last it assumes a character of gruffness. If, however, from the middle of our compass downwards we sing the *ee* as in *pip*, prolonged, the quality of tone will be most materially improved." *

Example: —



How to Produce a good *oh:* Sing *ah* as before, and change it into *oh* by a slight lateral approximation of the lips, keeping the teeth as far apart as in *ah*. "*Oh* as in *those* is not so favorable a vowel for singing as in *on* prolonged, which yields a good tone at nearly all pitches, but the best results are obtained from the *oh* as in *door*." †

Example: —

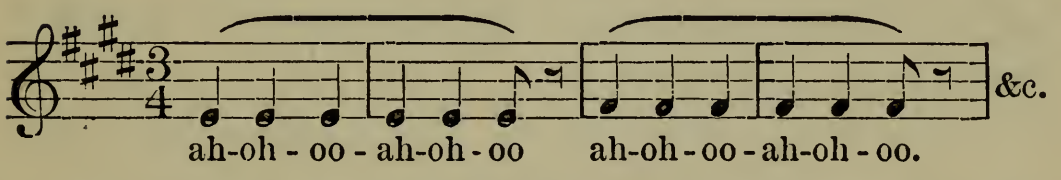


How to produce a good *oo:* Sing *ah-oh* as before, and then change the *oh* into *oo* by another slight lateral approximation of the lips,

* *Voice, Song, and Speech*, p. 220. † *Ibid.*

again keeping the teeth as far apart as in *ah*. The *oo*, like the *ee*, is a variable vowel, and cannot be sung with the same quality at all pitches. "*Oo* as in *pool* is a favorable vowel for the lower part of the voice; the quality of tone deteriorates as we ascend the scale, and the *oo* must now be sung as in *pull* prolonged, when the quality will at once improve materially." *

Example: —



The above directions for the formation of the elementary vowels are necessarily, as we have said above, only *hints*. Nobody has ever succeeded in describing in writing how to produce a good tone of any kind, and nobody ever will. But our hints are not intended for self-instruction, and we hope they may be useful to teachers who have not hitherto paid special attention to this matter, and who are willing to put our advice to the test of actual experiment.

* *Voice, Song, and Speech*, p. 220.

Causes underlying the Change of Voice in both Sexes.

The thoughtful will find ample material for reflection in the replies to our questions in the last chapter. To ourselves they suggested an inquiry into the causes underlying the changes of voice in both sexes.

In the case of a boy, the bodily change at puberty is simply one of growth and development, but the vocal change is so complete that it is quite impossible even to predict what a boy's voice will become in manhood; that is to say, a boy's voice may be treble, and his man's voice bass; or the boy's voice may be alto, and his man's voice tenor.

On the other hand, in the case of a girl, the bodily change at puberty is something much more radical; but the voice of the female child undergoes scarcely any change with womanhood except that of development: that is to say, a girl singing soprano or contralto will, in the vast majority of cases, preserve the same *class* of voice.

This is to our minds a most interesting question, and we have asked a number of leading anatomists and physiologists whether they could afford us any physiological explanation of the apparent mystery. We subjoin their answers: —

Professor Struthers, *Professor of Anatomy in the University of Aberdeen:* "I think you are mistaken in assuming that a girl undergoes greater changes than a boy at puberty. As far as the larynx is concerned, it is, I rather think, the contrary. Boys' and girls' voices are far more like each other than men's and women's. The male adult larynx is very much larger than the female, and the great change takes place at puberty."

Dr. James Barr, *of Liverpool:* "It seems to me that you start with a false premise — 'In the case of the boy, the bodily change at puberty is simply one of growth and development.' Is there not also an evolution of character both morally and intellectually? Is there not also a varying development in the larynx, vocal cords, etc., which does not occur in the female? You (*Voice, Song, and Speech*, pp. 94–96) ascribe the varying length, thickness, etc., of the vocal cords the chief factor in the division of voices. May it not be that there is something in the opinion of Dr. Delauny, which you quote at p. 97? Is it not a fact that many good tenors are rather effeminate and defective in manly traits of character? In females, puberty effects great physical changes in the evolution of the sexual functions; but this seems to be chiefly in the direction of child-bearing. There is not the same alteration in character,

and what changes there are, are in an opposite direction to those of the male. She becomes more subdued, more modest and retiring, less self-assertive, and more matronly in her habits."

Professor Michael Foster, F.R.S., *Professor of Physiology in the University of Cambridge:* "Is not the difficulty largely increased by the use of the word 'radical'? I would rather say that the bodily change at puberty is in women more special, and then, I think, the difficulty, if I understand your difficulty aright, will be much less. In the course of the evolution of the sexual characteristics of the adult there has been nothing which had led to any marked change in the voice of woman, but rather the influences have acted to keep it as it was. In man, on the other hand, influences have tended to a marked change in the voice, leading to a great jump at puberty. A somewhat analogous case is the beard; the change in a woman's chin is *nil* at puberty; that in a man's immense! Both large changes leading to beard and manly voice are sexual characters, called forth as Darwin has shown us. If, however, you ask me why A's voice should change to bass, while B's changes to tenor, no one, as far as I know, can answer, any more than why C's beard is dense and big, and D's a few scattered hairs. These are inner secrets of the correlation of different parts of the organism about which we are almost wholly in the dark."

Professor Turner, F.R.S., *Professor of Anatomy in the University of Edinburgh, and at the Royal Scottish Academy:* "My conception of the difference in voice in the two sexes has been that it was due to the local changes in the larynx itself . . . . and not to a general bodily change; and which local changes do not occur to

anything like the same extent in the female larynx as in the male at the time of puberty."

Professor Arthur Gamgee, F.R.S., *Professor of Physiology and Histology in Owen's College, Manchester, etc.*: "It appears to me that the commonly occurring change in the pitch of the male voice at puberty is to be reconciled with the constancy of the pitch of the young girl's voice before and after puberty by the undoubted fact that the male larynx undergoes at puberty changes in *form* and *dimensions* very greatly exceeding those affecting the female larynx. That the length and adjustments of the vocal cords should be very greatly affected by changes in form and dimensions such as lead to so prominent a feature as the *pomum Adami* seems very intelligible."

Professor W. B. Carpenter, C.B., F.R.S.: "I do not see that any other physiological explanation can be given than that the sexual development of the male takes the direction of the production of the beard, and the enlargement of the larynx; whilst in the female it shows itself in the enlargement of the mammæ."

Professor P. Gruetzner, *Author of "Physiology of Voice and Speech" in Hermann's "Handbook of Physiology"*: "I am not in a position to give any satisfactory information about the deep-lying causes of these phenomena; but there are probably hereditary influences at work which are of great importance."

In addition to the above we have consulted the best German and French authorities without much result. They all content themselves with a bare statement of the facts without attempt-

ing any physiological explanation. Merkel gives the most detailed account of the structural changes and differences in the vocal organs in a masterly and most scientific manner, but he does not go beyond the facts.

From consideration of the answers given us by our own distinguished correspondents, we do not seem to have succeeded, in all cases, in making ourselves perfectly clear as to the aim of our question.

Some appear to have considered it a sufficient reply to our question to point out to us the much greater change in the structure of the larynx of the boy, as compared with that of the girl. Of this, of course, we were perfectly aware, and it satisfactorily accounts for the much greater change of voice in the one sex than in the other. The mysterious point to our minds is just this: Why should the great general bodily change of the girl at puberty be accompanied by scarcely any change in the larynx; while, on the other hand, the comparatively speaking much less radical and general bodily change of the boy at puberty is accompanied by a complete transformation of the larynx. The only hint at a satisfactory conclusion is in following out the very pertinent line of thought suggested to us by Professor Michael Foster.

Acting upon his hint we have consulted Darwin's writings; and we here quote some extracts pertaining to our subject from the *Descent of Man*, pt. iii., c. xix., p. 566: —

"In some species of quadrumana there is a great difference between the adult sexes in the power of their voices and in the development of the vocal organs; and man appears to have inherited this difference from his early progenitors. His vocal cords are about one-third longer than in women or in boys, and emasculation produces the same effect on him as on the lower animals, for it 'arrests that prominent growth of the thyroids, etc., which accompanies the elongation of the cords.'* With respect to the cause of this difference between the sexes I have nothing to add to the remarks on the probale effects of the long-continued use of the vocal organs by the male under the excitement of *love*, *rage*, and *jealousy*."

(N.B.— In the preceding chapter Darwin has shown at great length how (1) the use and the growth of the vocal organs may have originated during the excitement of love-making; and (2) how, during the struggle of the males for the females among non-polygamous animals, the males made more use of their voices, which consequently developed more completely. They used their voices in love-making, in fighting for the handsomest females, and in the warfare promiscuously carried on during this period.)

* Owen, *Anatomy of Vertebrates*.

"The capacity and love for singing and music, though not a sexual character in man, must not here be passed over. Although the sounds emitted by animals of all kinds may serve many purposes, a strong case can be made out that the vocal organs were primarily used and perfected in relation to the propagation of the species. Insects and some few spiders are the lowest animals which voluntarily produce any sound; and this is generally effected by the aid of beautifully constructed stridulating organs, which are often confined to the males. The sounds thus produced consist, I believe, in all cases of the same acts rhythmically repeated: and this is sometimes pleasing even to the ears of men. The chief and, in some cases, exclusive purpose appears to be either to call or charm the opposite sex. The sounds produced by fishes are said in some cases to be made only by the males during the breeding season."

After all has been said, however, we cannot flatter ourselves that we have been able to obtain a complete or entirely satisfactory solution of this highly interesting problem, and we can only hope that our mention of the matter may have the effect of causing it to be further investigated by others competent to deal with it.

The Question of Boys' Singing during Puberty.

We have now arrived at a new stage of our inquiry, namely, whether it is safe for children to continue singing during the time of puberty. Beginning with boys, we have 190 replies to the question, "Do you consider it safe for a boy to continue singing while his voice is breaking?"

2 correspondents say that it *is* safe.

11 say it is safe, if the voice be only *moderately used*, and *not strained*.

9 say a boy may safely continue to sing if he take a lower part.

3 recommend a lower part *for a time*, and afterwards *perfect rest*.

3 deprecate the custom of taking the lower part when the voice breaks.

2 comment on the danger of singing too soon after the break, before the voice is settled.

11 remark that there is often no *real* break, but only a gradual change.

6 give inconclusive replies.
6 note peculiarities attending the break.
158 say that it is *decidedly not* safe for a boy to sing while his voice is breaking.

We quote some of the answers in full:—

Mr. Edwin Edwards: "If the boy is physically able to sing—i. e., if he can control his voice, and does not by singing bring on coughing or irritation of the throat—he should sing through childhood, youth, and adolescence.

"The voice is no more injured by reasonable exercise in singing than it is by moderate use in speaking or reading. Cases occur where singing is impossible for a period varying from one month to three years.

"With the majority of boys a few weeks' rest is sufficient; with many no cessation at all is required."

Mr. Joseph Proudman: "Safe, if he sings softly, and is *guided* as to the shifting of his compass."

Dr. Thomas Rogers: "I do not think that any harm accrues if the boy's voice is not *strained* to reach notes which he has lost."

Mr. E. H. Turpin: "Yes, with care; but not after the speaking-voice shows a decided change."

Mr. John M. W. Young: "I do not think it will injure a boy or affect his voice afterwards, if he sing a *little and quietly* when his voice begins to change; but on the first indication of a change of voice he should not be allowed to sing any *exercises* or *practise* any more. This has been my plan for many years."

Dr. Sloman: "It is not good for him; but he may sing *alto* with little or no injury."

Dr. George Dixon: "When his voice is gradually changing, he might confine it to taking alto parts *for a time*."

Dr. A. E. Dyer: "When a boy continues singing *treble* while the voice is breaking, or up to that time, it usually ruins the voice for after years. A boy may continue singing *always* without injury under the following conditions: — Before the voice shows symptoms of breaking, let him sing *alto;* then, when symptoms appear to indicate a difficulty of producing the upper notes, let him sing *tenor*, when his voice will remain; or, if it appears that the upper notes become difficult, let him sing baritone or bass. I always proceed in this way, and the voice in after life is always good. Voices differ, of course; a careful supervision is always necessary."

Mr. Alfred J. Eyre: "When the first signs appear, he should be released from singing the upper treble part, although, *for a short time*, he might sing the second treble or an alto part, and *afterwards rest entirely*."

Dr. Bentley: "I never stopped singing — proceeding to alto, when soprano notes failed, and since to tenor, without ill effects. I am of opinion this can be successfully done in most cases. If the failure of the boy's voice is sudden, my opinion is that he should cease singing until his voice settles."

Dr. Abram: "I think it a great mistake, when a boy's voice commences to break, that he is encouraged to sing *alto*. In my estimation, a most dismal *croak* is the result."

Mr. C. Chambers: "I have often heard boys singing

alto in parish (not cathedral) churches when their voices have been breaking. I believe it is *unnatural*, and therefore *hurtful* for them to do so."

Mr. James Pye: "However great the importance that is to be attached to the period of 'breaking,' I think that much damage is done, especially to light tenor voices, by indiscretion when the voice is *apparantly but just settled*, and when low notes are frequently somewhat easy to produce. I have had several pupils whose tenor voices have been injured before they came to me by singing bass and attempting to cultivate the lower notes, under the impression that bass was their natural part. My own opinion as to the period when the voice changes, is that it makes very little difference then whether a boy sings or not, unless he is induced to make unnatural or painful effort; but the early efforts of the young man require the greatest care."

Dr. Stainer: "I have found that a large majority of young men begin to use their voice before it is 'settled,' and so injure their vocal organs permanently. I have also found that their voices are liable, before settling, to remarkable changes in compass and quality."

Mr. T. Roylands-Smith: "I am of opinion that youths and young men do not give sufficient time for their manly voices to *settle* before beginning freely to use them. I do not think sufficient time is allowed for the needful rest of the voice during the time the throat is developing; and this is a cause of so many voices of men being of an unmusical character."

Mr. Louis N. Parker: "I have no doubt whatever that, in many instances, a boy's voice never 'breaks' (in the ordinary acceptation) at all. I have had several cases, during eleven years' experience, where the voice has grad-

ually changed, but it has always been usable. A *special instance* is that of Mr. St. J. Ainslie (now of Oriel College, Oxon), who has sung solos in our choir as treble, alto, tenor, and finally bass. He was good in all, and his voice is now a very fine one. I find that this occurs most frequently in the case of boys whose voices have been highly cultivated and much exercised."

Dr. Thomas Rogers: "In many cases I have known, boys' voices have never really broken, but have gradually changed in compass, gaining lower notes as they lost higher ones. My own voice is a case in point. I used as a lad to sing treble; then I took to alto; and finally to tenor, where I stayed. But I never had, as some boys have, a period of a year or two when I could not sing at all."

Rev. Ernest Letts: "Some voices break very suddenly, *others by very slow degrees*. If the voice shows no signs of cracking near the break (C to E), I do not think it hurts to use it. I have a boy, now nearly eighteen, who sings A in alto perfectly, and shows no signs of breaking; but this is exceptional."

Mr. F. H. Burstall: "I know of one extraordinary instance of a boy retaining his treble voice *throughout*. He is now twenty-one years of age, and he has sung (*without intermission*), under my own personal observation, since he was thirteen. His voice is now clearer and purer than ever. He can take the high C with perfect ease."

Mr. George E. Lake: "I had a friend who retained a very high and exquisite soprano (not falsetto) voice, *without change*, past puberty, till more than nineteen, when he was killed in an accident."

Rev. W. D. V. Duncombe: "I remember two cases where the treble voice was continued until a very late

period of adolescense. One was a former lay clerk here (at Hereford Cathedral), who was a chorister boy, and sang treble solos well up to the age of nineteen. He afterwards developed into a good basso-cantante of considerable volume and good sympathetic quality. The other was an Oxford undergraduate, who used to sing such music as the soprano in "Elijah" with powerful and thrilling tones. But by-and-by his voice developed into an exceedingly unpleasant tenor, lacking in quality and intonation."

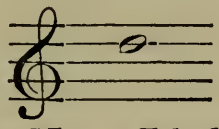
Mr. Andrew Ashcroft: "It *may* not do harm, if at the very earliest stages of breaking the voice is used moderately. But my own experience has led me to the impression that there is such a change going on in the whole physical constitution of the boy as to need the very closest watching."

Rev. Frederick W. Helmore: "If only moderately exercised, the voice *may* not suffer harm; but regular hard work ought to be avoided."

Mr. W. G. McNaught: "I have always feared to allow boys to sing while their voices are breaking. Some literally cannot; but some *can*, and *will*."

Mr. W. Litster: "I generally find that at the break there is at first a difficulty to get the pupil to sing in the *old* octave, and yet the man's octave is too low for him. It thus becomes impossible to get any part-music to suit such a voice. Beyond this, however, the voice always becomes unmanageable. My experience has been not so much with specially trained solo boys as with the general run of voices."

Dr. G. C. Martin: "As a general rule, I should say it is better that he should *not* sing during this time, although

in special cases it might do the boy no harm to sing those notes he *can* sing with ease and comfort. But, *most decidedly* he should never try his voice *near* where the break actually takes place. By 'special cases' I mean when the failing takes place from  and upwards."

Dr. Bridge: "No. I believe that a boy should cease to sing as soon as his voice shows *signs* of breaking."

Mr. Edward Lloyd: "I should say no. Directly a boy's voice begins to break, he should cease to use it."

Mr. Joseph C. Bridge: "Certainly not. But the exigencies of cathedral work often compel it to be done. Until a boy's voice breaks, you cannot say 'he ought to cease singing.' But, of course, he ought to stop when his voice *begins to go*."

"Lieut.-Colonel Douglas: "I think, as a rule, a boy may continue to sing until some deterioration is noticed. But directly he produces his notes with an unusual effort, or otherwise *shows signs of change*, he should discontinue. Many boys are made to continue singing lower music, which I consider a great mistake."

Mr. B. M. de Solla: "No. He ought to discontinue at the first symptoms of a change."

Mr. W. H. Cummings: "Most assuredly *not*."

Dr. Garrett: "*Certainly not.* The throat is not in a condition for it in ninety-nine cases out of a hundred."

Dr. H. T. Pringuer: "*Decidedly not;* and the custom that much obtains in choirs, of making boys whose voices are breaking sing second treble, or alto, is bad in the extreme. I am of opinion that the low notes (the deepest

register) of a boy's voice should scarcely ever be used, if he desires to retain any useful voice as a man. I think that E should be the lowest limit of a boy's voice, and not too much of that."

Mr. H. Handel Gear: "*Decidedly not.* It would be most dangerous to attempt, as at about the age of fourteen or fifteen years the vocal organs undergo a total change in boys; and as the pitch of the voice descends an octave or more, it is desirable to leave off singing until the voice becomes settled, which takes about three or four years, depending on the rapidity of the growth."

Sir Robert Stewart: "*No.* No more than to move his arm while the bone knits, after breaking it."

Mr. J. G. Patey: "No. No doubt boys sing too long, i. e. after the change in the vocal organ has begun; and many voices are *ruined* in this way. You might as well expect a broken leg to become a strong, straight limb without rest."

Mr. J. B. Welch: "My opinion is that no male should study singing, or *use his voice*, until about eighteen or nineteen, *after* the first appearance of the voice beginning to change. Such was my master's (Signor Nava's) opinion also."

Rev. W. Mann: "No. I consider such a practice generally exerts a bad influence on his man's voice. I have no doubt whatever that the practice of our heavy cathedral work daily, after the age of (say) fourteen, tends to injure the coming man's voice. I think the assertion (that there is no necessity for boys whose voices are breaking to discontinue singing) could only be tenable on the supposition that the voices were not strained in any way, and that boys

were only allowed to sing quietly, in a subdued manner, and in no way *beyond their easy compass*, when the season of "breakage" was approaching. But even then I believe that they would have a better chance by *complete rest*."

Mr. Louis Emanuel: "My experience (a long one at home and in India) as a teacher of large vocal classes, and choir director, has shown me the danger of exercising a boy's voice during the transition state, of change or breaking of voice. One of the most evident and striking premonitory symptoms of the change is the extreme sensibility to hoarseness and partial (sometimes entire) loss of voice as the result of any cold. After such an attack, the thickening and general huskiness of the voice is particularly evident. Another cold then surely renders the lad *hors de combat*. This is the most dangerous stage of any boy singer, and in my opinion, *at the first symptoms* of thickening, huskiness, hoarsness, or difficulty in singing, the voice should have *perfect rest*. Any departure from this necessary restraint will surely have the worst possible results."

Dr. Frederick Iliffe: "*Most unsafe* — a great and almost general mistake."

Mr. George Kennett: "Singing should be *totally suspended* while the voice is undergoing the change, i. e., between the ages of fourteen and eighteen (*circa*)."

Mr. Joseph Maas: "It would be ridiculous for him to attempt. The boy's voice should have *perfect rest* until the other voice has appeared. The exercise of the body for development of the chest and throat, etc., should go on during that period of repose by gentle (never violent) gymnastic exercise, in as much fresh air as possible. All poetic and intellectual aspirations should be encouraged;

as soon as the man's voice appears, he can commence gently and carefully to train it. It may then take seven years to develop."

Dr. Horton Alison: "No. I should think it *certainly useless* and *probably* injurious."

Rev. G. Willoughby Barrett: "Certainly not, if he wishes to have any voice as a man."

Mr. T. Herbert Spinney: "Certainly not. I know of many cases where it has apparently *ruined* the voice."

Dr. Parry: "Most decidedly not; as such would but *ruin* the finest organs."

Mr. John Storer: "No. Decidedly not; the *greatest folly imaginable.*"

Mr. Louis W. Parker: "Certainly not; most unsafe and *disastrous*. I cannot imagine any one in his senses supporting such a theory as that boys may sing while their voices are breaking. *What are they to sing?*"

Dr. H. A. Harding: "No. I think it a cruel shame that boys are made to sing *at all* when their voices begin to break; and I attribute the scarcity of real tenors and basses to this practice."

In order to have a number of actual personal experiences on this point, we asked 295 students in training colleges for schoolmasters whether they ceased singing during the time of puberty, with this result: —

64 do not recollect;
80 rested; and
151 continued singing.

In summing up the evidence contained in the preceding replies, we need be but brief. Either the boy's voice changes gradually and imperceptibly — and then there is no break; in this case singing *may* possibly be continued, under the guidance of a competent master, without detriment. Or the voice breaks — that is to say, a sudden change takes place. The boy, even in speaking, leaps suddenly from the voice of the child into that of the man, and *vice versâ*, and he has no control of either. It is perfectly clear that under such circumstances voice-use becomes an impossibility. We conclude this part of our subject with the following quotation from the late Dr. Mandl, who was for nearly thirty years physician to the Paris Conservatoire of Music: —*

"We know that at the period of the beginning of puberty there takes place not only an elongation and growth of the vocal cords, but also a congestion. In this state the marked alterations of the voice find their explanation. We also understand why during this state, which is almost a chronic inflammation, all work becomes impossible."

* *Traité pratique des Maladies du Larynx et du Pharynx.* Paris, 1872.

Actual Results of Boys' Singing during Puberty.

We followed up the question just treated, by asking whether our correspondents had ever known instances of boys being made to sing through the period of puberty, and, if so, with what result. To this we received 152 replies: —

40 correspondents have no knowledge.

5 think that the voice is improved by the experiment.

10 know of the experiment having been made, and consider it has caused no harm to the voice.

10 quote *solitary instances* where no harm has arisen.

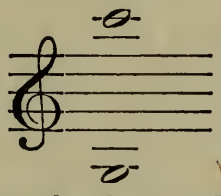
8 mention results so variable as to admit of no conclusion.

79 say that the experiment causes *certain injury, deterioration,* or *ruin* to the after voice; and of this number 10 observe that they have suffered disastrous effects *in their own persons.*

We append a few of the answers, which will be read with interest: —

Mr. F. Russe: "Yes, *frequently;* with the result that the voices have generally become *more powerful* than those that have stopped singing during the break."

Mr. Charles H. Lloyd: "An excellent bass singer of my acquaintance assures me that he sang soprano as a boy; and then alto, tenor, and finally bass, without intermission."

Mr. James Fitzgibbon: "Yes; many. I was for some years principal soprano at the Oratory, Brompton, my compass of voice being  I sang through the change of voice without the least detriment to my present voice, which is of excellent quality."

Mr. W. T. Goold: "Yes; with myself. Result — a compass of one octave and a half in my present voice."

Mr. Edwin Edwards: "I have known hundreds of cases with no ill effects whatever."

Mr. James F. Seabrook: "I have made many such experiments, with the result that, in the *large majority* of cases, the boys have afterwards become very fair singers of alto, tenor, or bass."

Mr. George Wilks: "I have let many of my choristers, during the last sixteen years, continue to sing *all through the breaking.* I do not think it has affected them injuriously. Some of the most diligent have developed good bass, tenor, or alto voices; and all have become decent singers who have remained here."

Dr. Gladstone: "One of the best male altos in London, who now sings in the choir at Lancaster Gate on Sunday evenings (but at the Chapel Royal, Whitehall, at other times), tells me that he sang while his voice was breaking; but as he uses the *head* register almost exclusively, his case may be considered exceptional. In the majority of cases that have come under my observation, there is a time when even the head voice is unmanageable, and when it should be rested until the adult voice is formed."

Mr. Joseph Proudman: "I have a lad in a school who one week sang alto, and in a fortnight after he was singing tenor fairly."

Rev. T. P. Brandram: "I know of *one* youth singing an excellent tenor now, in a country choir near Chichester, who has sung without an enforced interval through cracking of voice. (A very exceptional case.)"

Mr. Alfred Alexander: "I know the case of *one* lad in my choir who is now my leading alto (and is twenty-four years of age), who continued to sing throughout this trying period, with, apparently, no detriment to the vocal organ."

Dr. Garrett: "For some years I tried the experiment (having boy altos, as well as adults) of letting a first treble whose high notes were going finish his choristership as an alto. In only one case *out of many* did it retard the breaking of the voice, and such boys, although able from experience to make the best of themselves, usually broke down altogether in a very short time — I believe in less time than they would have done if they had not made the attempt. But I know of one striking case to the contrary effect.

"A boy at York, named Dawson, came straight from the choir boys' desk there (at eighteen) to a lay vicar's place at

Winchester, and went from there to Westminster Abbey a few years later. He had the finest alto voice I ever heard. It had no break (perceptible) from Fiddle G to Fiddle D — the fourth treble staff line. I have often heard him say that his voice never 'broke,' in the ordinary sense of the term; but that as he lost his upper notes he gained lower ones. It was when he was in the choir at Winchester that Wesley wrote his anthem, 'Ascribe unto the Lord,' and the alto part in this quartet will give some idea of his range (see 'O worship the Lord!')."

Mr. W. G. McNaught: "I sang alto as a lad, and I do not ever remember resting. When I could no longer sing alto, I tried tenor, and finally I settled at baritone. My voice is fairly full and round, and I cannot say that I have suffered because of my rashness, as I now consider it. A curious case came under my notice quite recently.

"A boy (at the Grammar School, Sevenoaks) sang alto easily and well in April, but when he returned in May, after the Easter vacation, his voice was a low bass, with notes of very fair quality, from B-flat above the bass clef to E-flat below. I have allowed him to sing gently, giving him strict instructions to cease singing directly he feels tired. Another boy in the same school rested for only a few weeks after his (alto) voice broke, and now, after one year, he promises to have an exceptionally sonorous baritone voice. These cases leave me in some doubt, and induce me to believe that as the time occupied in 'settling' differs so widely in individual cases, no general treatment is possible."

Mr. Edgar Taylor: "I myself am a case in point. As a chorister in Lincoln Cathedral, till nearly seventeen years old, I never entirely left off singing while my voice was breaking, and I gradually developed into a tenor. As

far as I can remember, I was never troubled by making the awkward 'barking' noises usual with boys at this period of life. No harm came to me, and it is impossible to say whether any good came from it."

Mr. James C. Calwick: "I know at least two cases where compulsion was used. The boys I mention were in after life very successful vocalists. I knew other boys not so dealt with who were not afterwards so successful. I perceive no rule in the matter."

Mr. James Pye: "I can recall four cases in which singing was not suspended during the breaking of the voice.

"In one case, notwithstanding a considerable strain on the voice in scholastic work, the young man, who was of strong and vigorous constitution, gradually developed a really fine and powerful voice. In another case, the boy's voice was exercised (against my own judgment) for some time after he had ceased to have perfect control over it. I resumed lessons with him as soon as possible after his voice had settled, and found him getting on very nicely; but he was prevented following up the training of his voice by a serious illness, which left him too weak to do very much singing. The other two youths were not pupils of mine. The singing they did during the period of change was not sufficient to produce any great effect, either for good or harm; and both afterwards had voices of fair average quality."

Mr. H. Handel Gear: "I have known instances, but the results have not been favorable."

Dr. Roberts: "Yes; results generally unsatisfactory, or, at least, not so good a voice as might have been expected."

Dr. H. A. Harding: "Yes, with *very unsatisfactory* results, there being no real quality about the voice afterwards."

Dr. Corbett: "I have known choir boys who would persist in singing at this period. The results were detrimental."

Mr. W. H. Cummings: "Yes; the result was the deterioration of the man's voice."

Mr. Alfred J. Eyre: "Yes, with the effect of 'roughening' the upper-chest register of the permanent voice."

Mr. Humphrey J. Stark: "I have watched such experiments very frequently, and I have not the slightest doubt that the *general* result is to permanenty injure the tone-quality (*timbre*) of the voice."

Mr. Andrew Ashcroft: "Yes; I have been the means of causing many children to continue singing while the voice was breaking; and I afterwards found out mischief had been done; the voices did not settle into pure *tone*."

Rev. W. Farley Wilkinson: "A cathedral organist with whom I am acquainted has told me that he attributes his own want of voice to such experiment having been made in his case."

Mr. Walter Spinney: "Several choir boys have gone from treble into the ranks of the men, but always with poor results."

Mr. Edwin H. Lott: "Frequently; and invariably with bad results."

Mr. R. Andrews: "Yes. In my opinion this fact of cathedral chorister boys being kept singing until after their voices have begun to break in a great measure accounts for so very few of them having good voices afterwards."

Dr. Bridge: "Mr. Maas left the choir when at his best. Dr. Crow, of Ripon, and Dr. Armes, of Durham Cathedral, who were at school with me, and sang *finely*, were *worked out*. Possibly this is why they have poor voices now."

Mr. Joseph Maas: "I have known *several* cases. Result — a deformed, unequal voice, of no character or value."

Mr. P. H. Diemer; "Yes; and it was between three and four years before even the *speaking* voice became decided."

Rev. G. Willoughby Barrett: "I have known one or two instances; but in each case the boy had *little or no voice when he became a man.*"

Dr. Edward Brown: "Yes; and with the result that the boy has grown up with, practically, *no voice at all.*"

Mr. Thomas F. Lane: "Yes. And in two cases out of three an *utter failure*. The third *was not much good!*"

Mr. Arthur Marriott: "Many. And the result has been disastrous."

Mr. D. S. Allen: "I have heard of several, and always with *disastrous* results following."

Mr. Arthur H. Cross: "Yes; and invariably attended with disastrous results."

Mr. H. F. Frost: "Several (including my own case), the results being invariably disastrous."

Sir Frederick A. Gore Ousley: "Yes; and with *fatal* results to the after voice."

Mr. Robert Griffiths: "I have known voices *quite spoiled* under such circumstances."

Mr. Arthur G. Leigh: "The result in every case has been ruin to the voice."

Dr. Parry: "Only in choirs, where boys' voices are *ruined* by continuing to sing alto during the change."

Mr. Walter Burnet: "I have known of *several cases* where it has proved very injurious, and *destroyed* what might have been a good voice."

Dr. George B. Arnold: "I have known *utter loss of voice*, consequent upon singing at the break, only recovered years after by careful treatment."

Mrs. Stapleton: "I know a musical gentleman whose speaking-voice has been injured by enthusiastic studies when a lad. He always speaks as if he were suffering from cold and hoarseness. He went to have his throat examined by an eminent physician, who said his vocal cords were *irreparably injured* in consequence of this indiscretion."

Mr. Joseph Ridgway: "Yes. A few years ago I met a young man, aged twenty, who *could only speak in a whisper*, through trying to sing when his voice was breaking!"

Dr. William Statham: "I made it on *myself* in the chapel choir at Marlborough, with the result that I spoiled the tone of my voice."

Dr. Longhurst: "Yes. I am a living witness, *never* having ceased singing since I was seven; and the consequence is that I, having had a good voice (two and a half octaves) as a boy, have but a weak voice as a man."

Mr. E. J. Belerby: "*I would sing* when my voice was breaking, and now have no voice worth the name, though my treble was very high (on two octaves); and I believe this was the cause."

Dr. Abram: "Yes, in my own case; and the consequence is that, although I can sing, there is no *music* in the voice."

Mr. George Kennett: "My own voice was spoiled by having to make constant use of it during the critical period from fourteen to eighteen."

Mr. T. Herbert Spinney: "Yes; I unfortunately made the experiment on myself. When my voice was breaking I was elected organist and choir-master in a country parish. I went on singing, and my voice has suffered *ever since*."

Mr. W. J. Bown: "I have proved it to be bad *in my own case*, as well as in others, having been a chorister boy in a cathedral, where I was kept too long at the treble voice after it became painful and required effort to sing at all well. Since then my voice has been nothing worth listening to, though I had been a solo boy for several years; and *my throat has always been bad since my treble voice left me*. Uvula very long, and the whole throat always more or less relaxed, causing pain to sing long."

Mr. John Storer: "Yes. In my own choir I have at the present moment four boys who will not give up singing. I *myself* sang all through the period of voice-breaking, together with three or four other boys. The result is we can certainly all *make a noise* now; but quality — 'Saints preserve us!'"

Dr. Stainer: "I consider my own case as one in point. Though my sisters have excellent voices (above the average), I have no more voice than a crow. As a boy in the choir of St. Paul's I sang solos after I was sixteen years of age."

At the end of the section on "The Question of Singing during Puberty," we stated that in our judgment "singing *may* possibly be continued under the guidance of a competent master without detriment," if the change in the boy's voice be gradual and imperceptible. Having now considered the "Actual Results of Singing during Puberty," we think our readers will agree with us that these results fully justify the caution with which we expressed our opinion.

The improvement of the voice by singing during puberty, recorded by five correspondents, clearly refers to exceptional cases; while the bulk of the evidence most strikingly proves the injurious and even ruinous consequences arising from the exercise of the voice by singing during the period of change.

Temptation to use the Voice of the Boy as long as possible.

The foregoing question naturally led to another, namely, "Is there a temptation to use the fine voice of the boy as long as possible, and in many cases even up to a time when, according to general opinion, he ought to have ceased singing?"

Out of 170 replies, only four correspondents say that the temptation does *not* exist. We give a few of the answers: —

Dr. Walter Sangster: "No."

Mr. William Vinnicombe: "Not so — amongst observant musicians."

Mr. Frank Braine: "There is no fear of this. Nobody will employ a voice in a solo which is apt to give way and crack."

Dr. Roberts: "No conscientious teacher would allow a boy to sing when his voice shows signs of breaking."

Mr. Edwin Edwards: "Certainly there is. But I do not admit that injury to the voice results therefrom."

Dr. Henry T. Pringuer; "Very much temptation; but not necessarily harmful. I have found that boys with very good high notes (developing a good top-register), and

who have sung much up to the last, seldom turn out to be tenors afterwards; but, as basses, have not materially injured their voices. This has been the case in *several* well-remembered instances under my *personal notice and control*, when I have carefully discouraged the use of the lowest register of the boy's voice."

Mr. Frank Spinney: "One naturally uses a good chorister to the last. I do not think too much singing before the breaking of the voice affects the voice afterwards. At least, it has not in my experience."

Sir Fred. A. Gore Ouseley: "Yes."

Dr. W. H. Monk: "Yes."

Sir. Robt. Stewart: "Yes; for obvious reasons."

Dr. Martin: "This is most undoubtedly a fact."

Mr. Henry C. Layton: "Undoubtedly. It is *very hard* to give up a good boy singer."

Mr. Walter Spinney: "Yes. I have done so myself, through necessity, frequently."

Dr. Charles J. Frost: "Most certainly it is. I had an illustration of this on Saturday last when a lad of sixteen or seventeen sang 'With Verdure clad' at an organ recital which I gave at St. Paul's Church, Charlton."

Rev. Edmund Venables: "Most certainly. *It is just too common in cathedrals.*"

Dr. George Dixon: "A very great temptation decidedly, particularly in cathedral choirs. Having been connected with one as a boy, I can speak from experience."

Rev. G. Willoughby Barrett: "Yes; especially in cathedrals in the case of 'useful boys.'"

Dr. Horton Alison: "Certainly there is a very strong

temptation to utilize the result of the labor of training as long as it can *possibly* be made available."

Mr. Louis Emanuel: "Certainly; a great temptation. The finer the boy's voice, the more desirous would the choir-master be to retain his services."

Dr. J. Christopher Marks: "Yes; for the boy is so useful that one likes to keep him as long as possible."

Mr. W. Lavington: "Yes; a very strong and somewhat natural temptation to do so, considering the great amount of labor given."

Mr. Edgar Taylor: "Most certainly. My old master used to regret extremely that when he had got a boy to something like 'perfection,' there was always the bitter disappointment of the lad's voice going, and the fruits of the master's labor departing with it."

Dr. G. B. Arnold: "Of course there is a great temptation. The preparation of his successor is delayed as long as possible to *save trouble*."

Mr. George Booth: "Yes; and especially to employ the broken down trebles, if good readers, for the alto part."

Dr. Bridge: "Yes; in choirs we are unable to spare them as we should. They are useful as readers; and, besides, we may never see them again."

Mr. D. W. Rootham: "I think in *most* choirs the boy whose voice is breaking is kept singing as long as he *can* sing, because his skill and knowledge of music are so useful to make things 'go.'"

Mr. R. Andrews: "In cathedral choirs, certainly yes. The better a boy sings and the finer his voice, the greater is the temptation to make use of him *to the very last*."

Mr. W. J. Bown: "Yes; I know of such a case at present, where it is known the boy's voice is going. He has been told to sing softly, to keep his voice for a certain event coming off shortly. He is about sixteen years of age."

Mr. John Storer: "Yes; a great temptation. I was solo boy from the age of eleven. I was singing top A's and B's when I was nearly seventeen. I had an exceptionally fine voice, and of course I was kept at it by my master until it finally would not go on any longer."

Dr. Stainer: "Certainly; but this should be discouraged."

Mr. Humphrey J. Stark: "Boys are often kept in choirs at the time their voices are changing, from other than *musical* motives. Probably the boy does not care to leave, and there is a chance that, if he once gave up his regular attendance, he would be lost as an adult chorister. These reasons often compel a choir-master, against his convictions, to retain a boy whose voice is changing."

Mr. J. B. Welch: "I think that in many cases the voices of boys are used long after they ought to have stopped singing for a time."

Mr. G. R. Egerton: "Yes. A chorister whose voice is breaking is very often kept longer in a choir than he ought to be, till another is ready to take his place."

Dr. Frederick Iliffe: "Yes. Choir-masters are naturally very loth to say 'good-bye' to a fine voice, and I am afraid most of us are tempted to keep them going a little too long."

Mr. Thomas F. Lane: "Yes, there is. I myself have

been very loth to keep a boy from singing, when he ought, in my opinion, to have left off."

Mr. J. W. Godsell: "Most emphatically I do. I am sorry to say that I have, on one or two occasions, yielded to the temptation, and felt sorry afterwards."

Mr. George H. Gregory: "Yes, I may add that, in my opinion, the fact that organists in general are, for singing purposes, practically voiceless, is owing to their singing too long when choristers, and straining their voices while breaking, while they are articled pupils, and have to assist in choir-training."

Mr. W. G. McNaught: "I fear I must say yes. School-teachers and choir-masters, more especially the more numerous amateur class, are thoughtless, if not reckless, in this matter. I think far more damage is done to boys' voices just *before* the break-up than just *after*. I think this question is of more serious practical importance than the others you ask — serious because of the frequent occurrence of the evil it points to, and serious because of the difficulty of finding a remedy."

Mr. James Taylor: "There is often a temptation, and it is too often yielded to, with an undoubted injury to the voice so used."

Mr. Henry A. Evans: "Yes. I believe many voices are quite ruined through being used too long."

Dr. Abram: "Yes. A very great temptation; to the detriment, not only of his future singing powers, but also of the throat generally."

Mr. T. Roylands-Smith: "Undoubtedly so. It is thus that the *irreparable* damage is done."

Dr. Charles W. Pearce: "Undoubtedly there *is* such

a temptation, and still more unfortunately this temptation is not often resisted. Only last evening I met at a choir rehearsal a young man whom I had not seen for ten years. Then, he was a solo boy in a very important London choir. Now, he is a very second-rate alto singer (I mean as regards the quality of his voice). When remonstrating with him for singing alto at all, he informed me that his choirmaster had kept him singing treble as long as he was able to produce a note; and then, when his voice failed him, after many disappointing attempts at singing tenor and afterwards bass, he took refuge in the alto ranks, where he is able to use (in a ghastly manner) what little remains to him of his fine treble voice."

Mr. Wm. Haynes: "Yes. Many voices are *quite ruined* by forcing them to sing at the time the voice is breaking. I have heard a boy sing well the first part of a concert, and change during the interval; utterly failing in the second part, and doing serious injury to his voice."

Mr. J. Field: "Yes. My brother was solo boy at St. George's, Windsor, but in consequence of his voice being used when it was breaking, his voice as a man was spoiled."

Mr. James Fitzgibbon: "I *do* think there is a temptation to use the voice too long.

"I can name a case, and a most lamentable one to the party concerned: — Mr. M. was a boy singer at Litchfield Cathedral. He was required to sing so much, to get the young boys up in their part, that he cannot now sing at all, and his speaking voice is most unpleasant."

Dr. Crow: "There is a very great temptation. I was kept in the choir as a treble *till sixteen years and nine months old*, to the ruin of my throat."

Mr. Joseph Maas: "Not by the boy himself, as it is difficult for him to hold his voice; and it is *cruel* of those who are interested to keep him singing long after the time he should have ceased. Unless it is only a temporary weakness, the moment a boy's voice commences to break on one or two notes, he should stop altogether."

The lesson to be derived from a careful study of the valuable material contained in the foregoing replies is obvious, and confirms in the most emphatic and unmistakable manner the conclusions drawn from the two preceding sections.

Speculations as to the Future Character of a Boy's Voice.

We close this part of our subject with a consideration of the question: "Is it possible to draw any conclusion from a boy's voice as to whether it will in manhood turn out a tenor, baritone, or bass?"

To this inquiry 167 correspondents reply as follows:—

16 cannot express any opinion.
15 think it *is* possible.
2 believe that a fairly accurate guess may be made.
20 consider it a matter of great uncertainty.
6 think the ultimate character of the voice is dependent on hereditary tendencies, physique, climatic influences, etc.
108 think it is *not* possible to draw any conclusion.

Mr. Arthur Marriott: "It is my opinion that an experienced organist or teacher may frequently form a good and true idea of what a boy may turn out as a man. General health and build, or rather physique, is perhaps the

first guide; but it has been my experience that a boy with a good *high* voice, and worked constantly, and up to the very point of breaking, becomes a bass, and has a good falsetto, if cultivated. Another — say a second treble — who is allowed to break up gently and gradually, becomes a tenor. It must be admitted that numbers of cathedral boys sing remarkably well as men, on account of their early training and experience; but I believe myself that the finest men's voices set best in those who have never worked hard as boy singers. But then the experience fails, and many are lost to the professional world for want of it."

Mr. James Fitzgibbon: "Yes. The high soprano will change to a bass; the contralto will change to a tenor. I can instance many, to prove it."

Mr. Louis N. Parker: "Yes. I have found roughly that trebles become basses, and altos tenors. If a treble voice *breaks*, the chances are it will become a baritone or bass. But if it only changes, it will probably become tenor."

Mr. D. W. Rootham: "Yes. In most cases I have found out that my first trebles have become tenors, and the seconds have become baritones or basses."

Mr. Alfred Gilbert: "Yes. I have found the low compass full voice generally develop into a tenor."

Mr. T. Roylands-Smith: "Yes. I have noticed that the voice of a boy, when thin in quality, usually turns out a tenor later on; and one of rich full *timbre* becomes in time a bass voice."

Dr. Hiles: "Yes. Probably it will retain its character as a high, or low voice."

Mr. H. M. Jackson: "You may guess very fairly,

but I think it almost impossible to say for certain. I have noticed this fact during an experience of nearly twenty years, which, although it may appear laughable, is nevertheless true; that when a boy's voice has broken, or nearly so, I have always advised him to take rest; and the result has been invariably this: If he takes a sharp spurt in his stature, and becomes a tall lad, his voice turns to bass or baritone for certain. If he remains short, stumpy, and inclined to be a little stout, he becomes generally a tenor or alto."

Mr. J. Evans: "I have noticed that delicate boys mostly become tenors, whilst robust boys' voices change to baritone or bass: but you cannot be certain what it will be."

Dr. Edwd. Brown: "I cannot speak with any confidence on this point; but I remember that most of my old boys who had high and flexible voices have turned out tenors, and those having lower ones basses and baritones."

Mr. Edward Cook: "I think there is a brighter but thinner quality in those likely to turn out tenors, and a duller but richer quality in those for bass. But this is, perhaps, only a fancy of mine."

Mr. George Minns: "I should hardly think so, *from the voice*. But I knew of instances where the same quallty of voice has run in a family for many years; and I have thus drawn a conclusion."

Mr. Ernest Letts: "I judge more by physique and character. Dark people are generally the best basses and altos; fair people tenors, counter-tenors, and sopranos."

Mr. William Vinnicombe: "I have observed that boys with thin quality soprano voices often develop into a tenor in the north and midlands; but the humid atmosphere

of the west influences the voice undergoing change, and the proportion of bass and baritone voices is considerably greater."

Dr. G. C. Martin: "I think it is impossible, on account of the great difference in physical development which takes place after the voice has changed."

Dr. Frank J. Sawyer: "No; I have found examples of boys with low voices becoming tenors, and boys with very high voices becoming basses, as often as I have found the contrary. From my experience I should say it was quite impossible to predict anything."

Mr. Joseph Maas: "Utterly impossible. It depends upon the after development of the throat and cavities, etc."

Having asked 295 students in training-colleges for schoolmasters what their voices were as boys, and what they are now, they replied as under: —

4 never sang as boys; they now sing tenor.
3 do not remember what they sang; they now sing tenor.
1 does not recollect what he sang; he now sings bass.
34 sang treble; they now sing tenor.
55 sang treble; they now sing bass.
65 sang alto; they now sing tenor.
1 sang alto; he now sings baritone.
112 sang alto; they now sing bass.

The remaining answers are rather curious,

and their chief interest lies in the fact that they show what peculiar ideas some people have on matters relating to the voice: —

7 sang both treble and alto; they now sing tenor.

7 sang both treble and alto; they now sing bass.

2 sang alto; they now sing tenor and bass.

1 sang tenor; he now sings tenor.

3 sang tenor; they now sing bass.

We see from such of the above replies as are really to the point that more trebles turn into bass than into tenor, and that a still larger number of altos turn into bass than into tenor. This is in accordance with the fact known to everybody, that there are more basses (commonly so called) in the world than there are tenors. These replies may, therefore, be taken as confirming the view we have always maintained, that it is not possible to draw any conclusion from a boy's voice as to what it will become in manhood.

The Question of Girls' Singing during Puberty.

We now turn to the question whether girls should discontinue singing during the change to womanhood. The opinions of some correspondents, in answer to this inquiry, are as under:—

Madame Seiler: "Never having found that the change to womanhood has any effect on the voice, I never make a break in instruction during that time, except when the whole system is affected by it, causing general ill-health."

Mrs. Curwen: "*Not necessarily* from singing, more than from any other study or fatiguing exercise. A *delicate* girl will require rest from all. Nature is the best guide. A girl will not feel inclined to sing if the voice becomes veiled, and is produced with difficulty; but if she feels bright and strong, and the voice be as clear as usual, I cannot see that singing need be harmful, provided always that the voice is well produced and *softly* used."

Mrs. Warren: "If the health is good, it is *not* necessary to rest: but there should be no hard singing."

Miss Franks: "Not altogether."

Mr. J. B. Welch: "*Very little* must be done during the change."

Madame Lemmens-Sherrington: "*Entire* rest is not advisable. Nothing but pleasant and amusing songs ought

to be learned *without a master* until seventeen. All but the very best masters are a mistake for the voice; others ruin it. The voice cannot be treated badly with impunity, and as parents do not generally give their children the best people to begin with, they generally have their voices spoiled before serious study commences."

Mrs. Mary Davies: "Dependent *entirely* on the girl's constitution. Some are very delicate at that time, and it would be unwise for them to sing. Others are so strong in constitution that it would not affect them at all to sing at this time."

Mrs. Higgs: "This must depend on the constitution; many girls being for a length of time too delicate and too weak to endure fatigue of vocal practice."

Miss Helen Kenway: "It depends on constitution and health. Some girls decidedly require rest, and almost all should sing with care, avoiding particularly the head voice. I find it best often to make girls sing *alto* for a while when about thirteen or fourteen years old."

Mr. W. M. Miller: "If girls persist in singing soprano, I think the voices would be better for a rest. But if they could be prevailed upon to sing a second soprano, or contralto part, then their voices would be all the better for moderate exercise."

Miss Macirone: "I think so, certainly."

Miss Grace Sherrington: "I should most strongly recommend the rest."

Mr. Arthur Cottam: "Certainly; the period of rest is quite as necessary with girls as with boys."

Mrs. Haynes: "A complete rest during the change to womanhood would, I think, be most desirable."

Mrs. Stapleton: "I think they *should always rest;* and I have known voices *permanently injured* through neglecting to do so."

We asked 219 students in training-colleges for school-mistresses whether they rested during the change to womanhood.

30 cannot remember if they rested or not.
183 did not discontinue singing.
6 rested during the change.

Inquiries made of other lady correspondents individually yield similar results. Very few rested entirely during puberty, but all agree that singing at this stage should be of a very gentle description.

When should a Girl commence to make Singing a Study?

When a girl may be permitted to commence serious work will be seen from the opinions we quote: —

Madame Antoinette Sterling: "Much depends upon the general health, strength, and constitution of the girl."

Mrs. Higgs: "As soon as the system is settled."

Miss Macirone: "As soon as their health is perfectly settled."

Mrs. Curwen: "As soon as the girl is strong enough to take up her ordinary round of studies, and feels ready and able to sing."

Madame Seiler: "As soon as the general health is good enough to bear any kind of fatigue."

Mrs. Stapleton: "That would depend upon circumstances. Some voices regain their proper condition more quickly than others; but I have always refused to accept pupils until I felt satisfied that their voices were strong enough to bear training."

Madame Lemmens-Sherrington: "A girl can begin to work seriously at seventeen. Much, however, depends on health and strength. Some girls are quite ready; others can do little or nothing; but seventeen is generally the time."

Mr. W. M. Miller: "Girls could begin *serious* voice-training when nineteen."

We entirely agree with those of our correspondents who would defer serious vocal work, such as is involved by voice-training, until two or more years after the change to womanhood, and until the system has completely settled. It is a great mistake to think of the voice only as the result of the action of a certain well-defined apparatus. It is, in fact, part and parcel of our entire selves, and affected by all manner of influences entirely apart from either voice-box or resonator, etc., as may be seen from the fact, for instance, that total loss of voice may result from derangement of some part of the general system, and that the voice will be completely recovered as soon as the function at fault has been restored to health. The change at puberty in girls is a much more serious matter in some cases than in others; but every girl requires special care at this time; and it is only reasonable therefore that such care should be also extended to their voices.

We have herewith completed the task we had set ourselves, and we have spared no pains to bring our inquiries to a satisfactory issue. May the present treatise meet with the same generous reception which has been accorded to our former publications.

LIST OF CONTRIBUTORS.

ABRAM, John, Mus. Doc. Oxon., F.C.O., Orgt. St. Paul's, St. Leonards-on-Sea.
ADAMSON, Alexander, Grad. T. S. Coll., Condr. T. S. Choral Society, Dundee.
ALEXANDER, Alfred, Orgt., C. M., Par. Ch., Wigan.
ALLAN, D. S., Teacher of Music, Glasgow School Board.
ALLISON, Horton, Mus. Doc., M.R.A.M., one of H. M. Examiners in Music.
ANDREWS, R., Vicar Choral, Hereford Cathedral.
ARNOLD, G. B., Mus. Doc., Orgt. Winchester Cathedral.
ASHCROFT, Andrew, Teacher of Singing.
ATKINS, R. A., Orgt. St. Asaph Cathedral.

BACKHOUSE, Thomas, Orgt. Par. Ch., Bideford.
BAILEY, Charles, Orgt., C.M., Par. Ch., Wigan.
BARRETT, Rev. G. Willoughby, M.A.Oxon., Precentor Norwich Cathedral.
BARRETT, John, Teacher of Singing, Cheltenham.
BARTHOLOMEW, R., Orgt. Par. Ch., Ludlow.
BELLAMY, William H., Orgt., C.M., Par. Ch., Calne.
BELLERBY, Edward J., Orgt., C.M., Par. Ch., Margate.
BENTLEY, J. M., Mus. Doc. Cantab., etc., Manchester.
BIGGIN, Henry N., Orgt., C.M., Par. Ch., Chesterfield.
BOOTH, George, Orgt., C.M., St. James', Doncaster.
BOURNE, Alfred, B.A., Secretary British and Foreign School Society.
BOWN, W. J., Orgt., C.M., St. Paul's, Newton Abbot.
BRAINE, FRANK, Condr. Kensington Philharm. Society, etc.
BRANDRAM, Rev. T. P., M.A.Oxon., Succentor, Chichester Cathedral.
BRIDGE, J. Frederick, Mus. Doc. Oxon., F.C.O., etc., Orgt. and Master of the Choristers, Westminster Abbey.
BRIDGE, Joseph C., M.A., Mus. Bac. Oxon., F. C. O., Orgt. C.M., Chester Cathedral.

BROTHERTON, John H., Orgt., C.M., The Grammar School, Bishop Auckland.
BROWN, Edward, Mus. Doc. Oxon., Orgt., C.M., St. James', Barrow-in-Furness.
BURNET, Walter, Orgt., C.M., St. John the Divine, Liverpool.
BURSTALL, Fredk. H., Orgt., C.M., Liverpool Cathedral.
BUTTERWORTH, Alfred E., Orgt., C.M., St. John's, Sidcup.

CALDICOTT, Alfred J., Mus. Bac. Cantab.; Prof. Royal Coll. Mus.; late Assist. Orgt. Worcester Cathedral.
CARLISLE, Mrs., Teacher of Singing.
CARTER, William, Orgt., C.M., St. Paul's, S. Kensington.
CHADWICK, Charles, Lay Clerk, Hereford Cathedral.
CHAMBERS, Charles, Mus. Bac. Cantab., Orgt., C.M., Jesmond Ch., Newcastle-on-Tyne.
COOK, Edward, Orgt., C.M., St. Paul's, Clifton.
COOKE, T. E., Orgt., C.M., St. Nicholas', Warwick.
CORBETT, S., Mus. Doc. Cantab., F.C.O., Orgt., C.M., St. Mary's, Bridgnorth.
COTTAM, Arthur, Orgt., C.M., Gt. Stanmore Par. Ch.
COX, W. Haydn, Orgt., C.M., Par. Ch., Clifton.
CROSS, Arthur, Orgt., C.M., Sandringham.
CROW, Edwin J., Mus. Doc. Cantab., F.C.O., Orgt., C.M., Ripon Cathedral.
CROWDY, Rev. J. G., Precentor, Winchester Cathedral.
CULWICK, James C., Orgt., C.M., Chapel Royal, Dublin.
CUMMINGS, Wm. H., Prof. R.A.M., etc.
CURWEN, J. Spencer, R.A.M., Tonic Sol-fa Coll.
CURWEN, Mrs.

DALBY, Thomas, Orgt. Par. Ch., and C.M. Association of Church Choirs, Launceston.
DAVIES, Madame Mary.
DIEMER, P. H., Orgt., C.M., St. Peter's, Bedford.
DICKSON, Rev. W. E., M.A., Precentor, Ely Cathedral.
DIXON, George, Mus. Doc. Oxon., Orgt., C.M., Par. Ch., Grantham.
DOUGLAS, Lieut.-Col. Hugh, Orgt., C.M., St. Cuthbert's, South Kensington.
DYER, Arthur E., Mus. Doc. Oxon., F.C.O., Orgt. and Musical Director, Cheltenham College.

EDWARDS, Edwin, F.C.O., Orgt., C.M., Rugby School (late Assist. Orgt. Wells Cathedral).

EGERTON, G. R., Orgt., C.M., St. Saviour's, Pimlico; Assist. Orgt. H.M. Chapels Royal.
EMANUEL, Louis N., A.R.A.M. and Philharmonic Soc.; late Condr. Philharm. and Choral Soc., Calcutta.
EVANS, Henry A., Orgt., C.M., St. Simon's, Chelsea.
EVANS, John, Instructor of Singing, London School Board.
EYRE, Alfred J., A.R.A.M., Orgt. Crystal Palace.

FFOULKES, W., Orgt., C.M., St. Andrew's, Southport.
FIELD, J. T., Orgt., C.M., Christ Church, Lee.
FISHER, Henry, Mus. Doc. Cantab., A.C., Tonic Sol-fa College, Blackpool.
FITZGERALD, James, Orgt., C.M., Par. Ch., Kidderminster.
FITZGIBBON, J., Orgt., C.M., St. Mary's, Peckham.
FORD, H., Orgt., C.M., Christ Church, Macclesfield.
FOSTER, W. H. C., Orgt., C.M., Holy Trinity, Louth.
FOWLES, Godwin, F.C.O., Orgt., C.M., St. Bart.'s, Southsea.
FOX, C.J., Orgt., C.M., Par. Ch., Hawkeshead, Ambleside.
FRANKS, Miss, A.F.S., A.C.P., Training School for Teachers of Kindergarten.
FREEMAN, P.T., Orgt., C.M., Crosthwaite, Par. Ch., Keswick.
FRICKER, Edward, Academy of Music, Swansea.
FROST, Charles J., Mus. Doc. Cantab., F.C.O., Orgt., C.M., Christ Church, Newgate Street.
FROST, H. F., F.C.O., Orgt., C.M., H.M. Chap. Royal, Savoy.
FRYE, F. R., Orgt., C.M., St. Mary's, Chelmsford.

GARRETT, George M., M.A., Mus. Doc. Cantab., Orgt. to the University of Cambridge.
GEAR, H. Handel.
GILBERT, Alfred, M.R.A.M., Condr. of Merchant Taylors' School Choral Socy., and of St. Paul's School Choral Socy.; Hon. Mem. St. Cecilia's, Rome.
GLADSTONE, F. E., Mus. Doc., F.C.O., Hon. M.R.A.M., Orgt. Christ Church, Lancaster Gate.
GODSELL, J. W., Orgt., Christ Church, Welshpool.
GOOLD, W. T., Orgt., C.M., St. Botolph's, Aldgate.
GOSDEN, Alfred J., Orgt., C.M., Par. Ch., Collumpton.
GREAVES, J. J., Orgt. Par. Ch., Preston.
GREGORY, G. H., Mus. Bac. Oxon., F.C.O., Orgt., C.M., Par. Ch., Boston.
GREGORY, Jas. L., F.C.O., Orgt., C.M., Par. Ch., Ware.

GRIFFITHS, Robt., Secretary, Tonic Sol-fa College.
GRUNDY, J., Orgt., C.M., St. Paul's, Canterbury.

HAMMICK, Edward, Orgt., C.M., St. Michael's, Lyndhurst, Hants.
HARDING, H. A., Mus. Doc. Oxon., F.C.O., Orgt., C.M., All Saints', Sidmouth.
HAY, Walter C., M.R.A.M., C.M., Shrewsbury School.
HAYNES, William, Orgt., C.M., Priory Ch., Great Malvern ; Prof. Singing, Malvern College; and late Assist. Orgt. Worcester Cathedral.
HAYNES, Mrs., Malvern.
HEALD, G. F., Orgt., C.M., St. Leonard's, Wortley.
HELMORE, Rev. F. W., M.A., Minor Canon and Precentor, Canterbury Cathedral.
HEMSLEY, Jas. Newman, Vicar Choral, Wells Cathedral.
HENDERSON, Charles, G.T.S.C., Edinburgh.
HEYWOOD, John, Orgt., C.M., St. Paul's, Balsall Heath.
HIGGS, Mrs., Teacher of Singing.
HILES, Henry, Mus. Doc. Oxon., Prof., Owen's College; Condr. Manchester Athenæum Society.

ILIFFE, Frederick, Mus. Doc. Oxon., Orgt., C.M., St. John's College, Oxford.

JACKSON, Henry M., Orgt., C.M., Wollaston Ch., Stourbridge.
JEKYLL, C. S., Orgt., Composer, and C.M. to H.M. Chapels Royal.
JORDAN, Warwick, Mus. Bac. Oxon., F.C.O., Orgt., C.M., St. Stephen's, Lewisham.

KENNETT, George, Orgt., C.M., St. Mark's, Leamington.
KENWAY, Miss Helen, Adv. Certif., T.S. College.

LAKE, George E., Orgt., C.M., Par. Ch., Weybridge.
LANE, Thomas F., Orgt., C.M., Par. Ch., Beaconsfield.
LAVINGTON, C. W., Orgt. Wells Cathedral.
LAYTON, H. C., A.Mus. T.C.L., Orgt., C.M., St. Peter's, Gloucester.
LEAMAN, Thos. J., Orgt., C.M., Par Ch., Warminster.
LEIGH, Arthur G., F.A.S., Orgt., C.M., St. George's, Chorley.
LETTS, Rev. Ernest F., M.A., Minor Canon and Precentor, Manchester Cathedral.
LEWIS, James H., Ph.D., F.G.S.E., etc., Orgt., C.M., St. Stephen's, Tunbridge Wells.

LITSTER, W., Conductor, Choral Association, Aberdeen.
LLOYD, Edward.
LLOYD, Chas. H., M.A., Mus. Bac. Oxon., Orgt. Christ-church Cathedral, Oxford.
LONGHURST, Wm. H., Mus. Doc. Cantuar., F.C.O., Orgt. Canterbury Cathedral.
LOTT, Edwin M., F.C.O., Visiting Prin. Music, International College; Orgt., C.M., St. Sepulchre's, Holborn.
LOTT, John B., Mus. Bac. Oxon., F.C.O., Orgt. Lichfield Cathedral.

MAAS, Joseph.
MACIRONE, Miss, Church of England High School for Girls, Upper Baker Street.
MAIN, William H., Orgt., C.M., St. Matthias', Malvern Link.
MANN, Rev. William, M.A., S.C.L., A.Mus.T.C.L., Precentor, Bristol Cathedral; former Precentor, Carlisle Cathedral, and Minor Canon of Winchester.
MARKS, J. Christopher, Mus. Doc. Oxon., Orgt. Cork Cathedral.
MARRIOTT, Arthur, Orgt. and Rector Chori, Southwell Cathedral.
MASON, William, Orgt., C.M., St. Martin's, Lincoln (late Orgt. Tuam Cathedral).
MATTHEWS, J., C.M. St. Mary's, Stoke Newington.
MAXFIELD, W. H., Orgt., C.M., St. George's, Altrincham.
MCKAY, Mrs. S. Bradshaw, Teacher of Singing.
MCNAUGHT, W. G., A.R.A.M., H.M. Assist. Inspector of Music in Training Colleges and Schools.
METCALFE, Wm., Lay Clerk, Carlisle Cathedral.
MILLER, W. M., Condr. Glasgow Sol-fa Choral Soc.; Inspector of Psalmody to the Church of Scotland; Lecturer on Music, Glasgow Free Training College.
MILLS, R. Watkin, Choral Vicar, Wells Cathedral.
MINNS, George, Lay Clerk, Ely Cathedral.
MONEY, H. T. Gibbons, Orgt., C.M., St. Andrew's Cathedral, Inverness.
MONK, W. H., Mus. Doc., Prof. Vocal Music, Orgt. and C.M., King's College, London.

OUSELEY, Rev. Sir Fredk. Gore, Bart., M.A., Mus. Doc. Oxon., Precentor of Hereford: Prof. of Music to the University of Oxford.

PARRY, Joseph, Mus. Doc. Cantab., Principal, Musical College of Wales.

PARKER, Louis N., A.R.A.M., Orgt., C.M., Sherborne School, Dorset.
PEARCE, C. W., Mus. Doc. Cantab., F.C.O., L.Mus.T.C.L., Orgt., C.M., St. Luke's, Old Street, City.
PATEY, J. G.
PRINGUER, H. T., Mus. Doc. Oxon., F.C.O.
PROUDMAN, Joseph, Prof. Voice-Training, Tonic Sol-fa College; Condr. Tonic Sol-fa Choral Association.
PYE, James T., Mus. Bac. Oxon., F.C.O., Orgt., C.M., Victoria Church, Leicester.

REED, Rev. S., Succentor, Ripon Cathedral, Master of the Choristers' School.
RIDGWAY, Joseph, A.R.A.M., Orgt. Holyrood Church; Condr. Choral and Orchestral Society, Southampton.
ROBERTS, J. P., Mus. Doc. Oxon., F.C.O., Orgt., C.M. Magdalen College, Oxford.
ROBINSON, C. W., Orgt., C.M., King Charles the Martyr, Falmouth.
RODDIE. W. S., Condr. Choral Association, Inverness.
ROGERS, F. F., Orgt., C.M., St. Peter's, Malvern Wells.
ROGERS, Rev. Thos., M.A., Mus. Doc., Precentor Durham Cathedral.
ROOTHAM, D. W., Orgt. St. Peter's, Clifton; C.M. Bristol Musical Festival Society.
RUSHTON, Samuel, Orgt., C.M., St. Thomas' Charter-house Church and Schools.
RUSSE, Thomas, A.C.O., Orgt., C.M., Par. Ch., Tiverton.

SAINTON-DOLBY, Madame.
SAMPSON, Brook, Mus. Bac. Oxon., F.C.O., Orgt., C.M., St. Edmund's, Northampton.
SANDELL, J., Orgt. Par. Ch., Taunton.
SANGSTER, Walter H., Mus. Doc. Oxon., Orgt., C.M., St. Saviour's, Eastbourne, and Eastbourne College.
SAWYER, F. J., Mus. Doc. Oxon., F.C.O., Grad. Leipzig Conservatoire; Orgt., C.M., St. Patrick's, Brighton.
SCOTT, W., Conductor, Musical Association, Cardiff.
SEABROOK, J. F., Rochester Board of Education.
SEILER, Madame, Author of "The Voice in Singing," "The Voice in Speaking," etc.
SHARPE, Booth, A.C.O., Orgt., C.M., St. Peter's, Queensbury, Bradford.
SHERRINGTON, Madame Lemmens.

SHERRINGTON, Miss Grace.
SLATER, J. F., F.C.O., Orgt., C.M., Holy Trinity, Oldham.
SLOMAN, R., Mus. Doc. Oxon., Orgt., C.M., St. Luke's, Norwood.
SMITH, T. Roylands-, Orgt., C.M., St. Mary's, Torquay, and Condr. Plympton Deanery Choral Union.
SOLLA, De, B.M., Professor of Singing.
SPINNEY, F., F.C.O., Orgt., C.M., Par. Ch., Leamington.
SPINNEY, T. Herbert, M.A. Oxon., F.C.O. (late Orgt. Exeter College, Oxford).
SPINNEY, Walter, Condr. Festival Choir and Sacred Harmonic Soc., Doncaster, and formerly Assist. Orgt. Salisbury Cathedral.
STAINER, John, M.A., Mus. Doc. Oxon., etc., Orgt. St. Paul's Cathedral; H.M. Inspector of Music.
STAPLETON, Mrs., Grad. Tonic Sol-fa College.
STARK, Humphrey J., Mus. Bac. Oxon., F.C.O., Orgt., C.M., Holy Trinity, Tulse Hill.
STATHAM, W., B.A., Mus. Doc., Orgt., C.M., Ellesmere Port Ch., Chester.
STEGGALL, Charles, Mus. Doc. Cantab., Orgt. and Choir Director to the Honble. Society of Lincoln's Inn.
STERLING, Madame Antoinette.
STEWART, Sir Robert, Mus. Doc., T.C.D., etc., Orgt. Trinity College, Dublin, and St. Patrick's and Christchurch Cathedrals.
STIMPSON, J., Orgt. Town Hall, Birmingham; C.M. Birm. Mus. Festivals (late Orgt., C.M., Carlisle Cathedral).
STORER, J., Mus. Bac. Oxon., Orgt., C.M., Par. Ch., Scarborough.

TAYLOR, Edgar, Hon. Certif. R.A.M., Loughborough.
TAYLOR, James, Mus. Bac. Oxon., Orgt., University and New Colleges, Oxford.
TOZER, Ferris, L.R.A.M., F.C.O., L.Mus.T.C.L., Orgt., C.M., St. Mary Magdalen's, St. Leonards-on-Sea.
TURPIN, E. H., F.C.O., L.Mus.T.C.L., Orgt., St. George's, Bloomsbury.

VENABLES, Rev. E., M.A., Precentor, Lincoln Cathedral.
VERRINDER, Chas. G., Mus. Doc. Cantuar., Orgt., C.M., St. Michael's, Chester Square.
VINNICOMBE, W., Orgt., C.M., Par. Ch., Exmouth.

WARREN, Mrs., Teaching of Singing, Manchester.

WELCH, J. B., Prof. Singing, National Training School of Music and Guildhall School of Music.

WILKINSON, Rev. W. Farley, M.A., Precentor, the Cathedral, Peterborough.

WILKS, George, Mus. Bac., M.C., etc., Precentor, St. Mary's, Ashford.

WOOD, Miss M. L., A.C.O., Orgt., Peel Church, Isle of Man ; Choir Trainer to King William's College.

YOUNG, John M. W., Orgt., C.M., Lincoln Cathedral.